



# ANNUAL FINANCIAL MARKET LIQUIDITY CONFERENCE

15TH-16TH NOVEMBER, 2018  
CORVINUS UNIVERSITY OF BUDAPEST, HUNGARY

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PROCEEDINGS

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Befektetések és Vállalati Pénzügyi  
Tanszék Alapítványa

Budapest University of Technology and Economics  
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**9<sup>th</sup> Annual Financial Market Liquidity Conference, 2018**  
**Budapest, Hungary**  
**15<sup>th</sup>-16<sup>th</sup> November, 2018**

CONFERENCE PROCEEDINGS

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## WELCOME FROM THE CHAIR

I warmly welcome all participants of the 2018 Annual Financial Market Liquidity (AFML) Conference. This is the ninth occasion when we are bringing together academics and practitioners to discuss the latest findings in the broad field of financial market liquidity. The lectures give an insight not only into classic liquidity related topics, but also into many interesting other fields of finance like macroeconomic modeling, banking stability or the effect of the freedom of the press.

This year the conference has a special session on Social Innovation that is part of an ongoing research of the Department of Finance supported by the Higher Education Institutional Excellence Program of the Ministry of Human Capacities in the framework of the 'Financial and Public Services' research project (1783-3/2018/FEKUTSTRAT) at Corvinus University of Budapest.

This is the right time and place to build and refresh your network with the 150+ registered participants, many of whom are returning lecturers or participants and remain strongly connected to our community.

Many people have contributed to this event. First of all, I would like to thank the speakers, poster session participants and the chairs for coming, and our sponsors for providing the resources.

I wish to thank the members of the scientific committee: Péter Csóka, Jonathan A. Batten, Edina Berlinger, Dániel Havran, Zsuzsa R. Huszár, Hubert János Kiss, László Á. Kóczy, Igor Lončarski, Mihály Ormos, Péter Szilágyi, Niklas Wagner, Adam Zawadowski; and the local organizing committee: Anita Lovas, Judit Lilla Keresztúri, Péter Kerényi, Gábor Kondor, Emília Németh-Durkó, Dóra Gréta Petróczy, Balázs Árpád Szűcs. Our assistants Judith Andaházy, Zsuzsa Fried, and Margit Hajnal also did an excellent job in taking care of ongoing tasks and challenges.

I trust everybody will contribute to the friendly and interactive atmosphere.

Enjoy the ninth AFML Conference and Budapest, I wish you all fruitful discussions.

Kind regards,  
Barbara Dömötör  
Chair of the Organizing Committee

P.S.: See you also at the 10th AFML Conference on 14-15 November 2019 Budapest!

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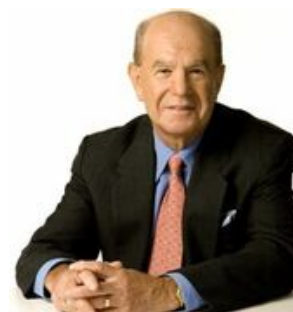
### ALTMAN, Edward I.

***Edward I. Altman: The Altman Z score model after 50 years: What have we learned, and Where are we in the Crédit Cycle, Is there a global debt bubble building?***

50 years ago, Professor ALTMAN published his first multivariate model for predicting the financial health of US manufacturing firms and whether or not they were likely to file for bankruptcy. This model is still the standard against which most bankruptcy and default prediction models are measured and is clearly the one used by most financial market practitioners and academic scholars for a variety of purposes. The purpose of this speech is to reflect upon the evolution of the Altman family of models developed over the years and their extensions and multiple applications for financial market and managerial decision making. In addition, Dr. Altman will comment on where we are in the current credit cycle and whether a global debt bubble is building.

### ALTMAN, Edward I.

is the Max L. Heine Professor of Finance, Emeritus at the Stern School of Business, New York University. He is the Director of Research in Credit and Debt Markets at the NYU Salomon Center for the Study of Financial Institutions. Prior to serving in his present position, Professor Altman chaired the Stern School's MBA Program for 12 years. Dr. Altman was named to the Max L. Heine endowed professorship at Stern in 1988 and his Emeritus status in September 2015.



Dr. Altman was born and raised in New York City and attended N.Y.C. public schools and the City College of New York, graduating with a BA degree in Economics in 1963. He then went on to pursue a MBA and Ph.D. in Finance from UCLA's School of Business, receiving the Doctorate in 1967, the same year he married his wife, Elaine Karalus. In 1973, their son, Gregory, was born in Paris, France, where Professor Altman was serving as a Visiting Professor of Finance at Hautes Etudes Commerciales from 1971-early 1973. Dr. Altman returned to France in 1976 and taught a Ph.D. seminar at the University of Paris-Dauphine (Paris IX). Subsequent to his French University experiences, he has been a Visiting Professor in Rio de Janeiro (PUC), Madrid (CEMFI), Naples (Partenope), Sydney (UNSW, Macquarie), Perth (UWA), and Milan (Bocconi).

Dr. Altman has an international reputation as an expert on corporate bankruptcy, high yield bonds, distressed debt and credit risk analysis. He was named Laureate 1984 by the Hautes Etudes Commerciales Foundation in Paris for his accumulated works on corporate distress prediction models and procedures for firm financial rehabilitation and awarded the Graham & Dodd Scroll for 1985 by the Financial Analysts Federation



for his work on Default Rates on High Yield Corporate Debt and was named " Professor Honorario by the University of Buenos Aires in 1996 and " Honorary Doctorate" from Lund University (Sweden) in 2011 and the Warsaw School of Economics in 2015. He was an advisor to the Centrale dei Bilanci in Italy and to several foreign central banks. Professor Altman is also the Chairman of the Academic Advisory Council of the Turnaround Management Association. He was inducted into the Fixed Income Analysts Society Hall of Fame in 2001, President of the Financial Management Association (2003) and a FMA Fellow in 2004 and was amongst the inaugural inductees into the Turnaround Management Association's Hall of Fame in 2008. In 2005, Prof. Altman was named one of the "100 Most Influential People in Finance" by the Treasury & Risk Management magazine.

Professor Altman was one of the founders (1977) and an Executive Editor of the international publication, the Journal of Banking and Finance and Advisory Editor of the publisher series, the John Wiley Frontiers in Finance Series. He was the Co-founder of the International network of Graduate Business Students Exchange Program, now known as PIM, started in 1973.

He is a member of the Academic Advisory Board and an Associate Editor of many academic journals including the Journal of Management and Financial Services (Warsaw), Journal of Credit Risk (London), International Journal of Banking, Accounting & Finance (UK), Revista Mexicana de Economia y Finanzas (Mexico), and Risk & Decision Analysis (Netherlands), as well as the co-founder and coordinator of the International Risk Management Conference (annually since 2008).

He has published or edited two-dozen books and over 150 articles in scholarly finance, accounting and economic journals. He was the editor of the Handbook of Corporate Finance and the Handbook of Financial Markets and Institutions and the author of a number of recent books, including his most recent works on Bankruptcy, Credit Risk and High Yield Junk Bonds (2002), Recovery Risk (2005), Corporate Financial Distress & Bankruptcy (3rd ed., 2006) and Managing Credit Risk (2nd ed. 2008). His work has appeared in many languages including Chinese, French, German, Italian, Japanese, Korean, Polish, Portuguese and Spanish.

Dr. Altman's primary areas of research include bankruptcy analysis and prediction, credit and lending policies, risk management and regulation in banking, corporate finance and capital markets. He has been a consultant to several government agencies, major financial and accounting institutions and industrial companies and has lectured to executives in North America, South America, Europe, Australia-New Zealand, Asia and Africa. He has testified before the U.S. Congress, the New York State Senate and several other government and regulatory organizations and is a Director and a member of the Advisory Board of a number of corporate, publishing, academic and financial institutions, including Paulson & Co., Franklin Mutual Advisors, Equinox Capital, Van Eck (Market Vectors), S&P Capital IQ, and a senior advisor to Classis Capital in Milan, Italy.

Dr. Altman is Chairman Emeritus of the InterSchool Orchestras of New York, a founding member of the Board of Trustees of the Museum of American Finance, and a patron of the Pershing Square Signature Theatre Group.

**CUMMING, Douglas*****Douglas Cumming: Linking microstructure and manipulation to corporate finance***

Research in microstructure and corporate finance is typically segregated. In this keynote, Douglas Cumming identifies some channels through which microstructure issues, such as liquidity and market manipulation, intersect with corporate finance issues. International evidence linking liquidity and market manipulation to innovation and M&As will be provided.

**CUMMING, Douglas**

is a DeSantis Distinguished Professor of Finance and Entrepreneurship at the College of Business, Florida Atlantic University. Douglas has published over 150 articles in leading refereed academic journals in finance, management, and law and economics, such as the Academy of Management Journal, Journal of Financial Economics, Review of Financial Studies, Journal of International Business Studies and the Journal of Empirical Legal Studies. He is the incoming Editor-in-Chief of the Journal of Corporate Finance, effective January 2018. He is the Founding Editor of Annals of Corporate Governance, and Co-Editor of Finance Research Letters, and Entrepreneurship Theory and Practice. He is the coauthor of Venture Capital and Private Equity Contracting (Elsevier Academic Press, 2nd Edition, 2013), and Hedge Fund Structure, Regulation and Performance around the World (Oxford University Press, 2013). He is the Editor of the Oxford Handbook of Entrepreneurial Finance (Oxford University Press, 2013), the Oxford Handbook of Private Equity (Oxford University Press, 2013), the Oxford Handbook of Venture Capital (Oxford University Press, 2013), the Oxford Handbook of Sovereign Wealth Funds (Oxford University Press, forthcoming 2017), and the Oxford Handbook of IPOs (Oxford University Press, forthcoming 2017). Douglas' work has been reviewed in numerous media outlets, including The Economist, The New York Times, the Wall Street Journal, the Globe and Mail, Canadian Business, the National Post, and The New Yorker.



**WALKER, Thomas*****Thomas Walker: Financial Innovations in the Social Economy***

Social innovations are able to contribute to social and ecological resilience while providing value to society as a whole rather than to private individuals. Social innovation has presented many novel solutions that are profoundly changing the routines, resource and authority flows, and beliefs of social systems. By dissolving the sectoral boundaries as well as integrating private capital with public and philanthropic support, social innovation combines the experience and expertise of each sector to speed up the creation of solutions for complex problems. This presentation is specifically focused on financial social innovations that have emerged in different types of organizations (e.g., private, public, or social economy enterprises). These innovations have had social impacts and have profoundly changed the finance field by creating many new opportunities and challenges. The presentation will specifically focus on innovations such as social impact bonds, local and social currencies, community banks, financial cooperatives, E-participatory budgeting, digital platforms, and social fintech apps. In addition, as a case study, the presentation will offer insights on social and solidarity finance in Quebec.

**WALKER, Thomas**

holds an MBA and PhD degree in Finance from Washington State University. Prior to his academic career, he worked for several years in the German consulting and industrial sector at such firms as Mercedes Benz, Utility Consultants International, Lahmeyer International, Telenet, and KPMG Peat Marwick. He has taught as a visiting professor at the University of Mannheim, the University of Bamberg, the European Business School, and the WHU – Otto Beisheim School of Management. His research interests are in sustainability & climate change, corporate governance, securities regulation and litigation, and insider trading and he has published over fifty articles and book chapters in these areas. His work has been featured in the Harvard Business Review and in Germany's Harvard Business Manager and he is the co-editor of two forthcoming books on sustainable financial systems and sustainable real estate.



Dr. Walker has held numerous administrative and research positions during his career. For instance, he served as the Laurentian Bank Professor in Integrated Risk Management (2010-2015), Chair of the Finance Department (2011-2014), Director/Co-director of the David O'Brien Centre for Sustainable Enterprise (2015-2017), and as Associate Dean, Research and Research Programs (2016-2017) at Concordia University. In addition, he has been an active member of various advisory boards and steering committees including, among others, the human resources group of Finance Montréal, the steering committee of the Montreal chapter of the Professional Risk Managers' International Association (PRMIA), the academic advisory board of the MMI/Morningstar Sustainable Investing Initiative, and the advisory board for Palgrave Macmillan's Future Earth book series on sustainability.

## INVITED SPEAKERS

**BATTEN, Jonathan A.**

*Jonathan A. Batten, Harald Kinateder, Peter G. Szilagyi, Niklas F. Wagner: Dynamic co-movements among crude oil and commodity markets*

This paper extends existing work on modelling oil and stock prices to establishing the relationship between oil and various commodities. Using a two asset portfolio setting (comprising the asset and the asset used for hedging) we show that information from oil-commodity comovements can effectively be used for hedging purposes. These finding are important since during periods of high asset integration, diversification is not possible since all asset prices move together. These results are also relevant for producers of single commodities, those firms that sell specific commodities as well as large agribusiness firms. In addition, the method used provides important insights into the time-varying properties of hedge effectiveness, an accounting standard requirement (e.g. IFRS 9).

**BATTEN, Jonathan A.**

holds the CIMB-UUM Chair in Banking and Finance at University Utara Malaysia and is an Honorary Professor in the Discipline of Finance at the University of Sydney Business School, Australia. Prior to these positions he worked as a Professor in Finance at Monash University, Australia, the Hong Kong University of Science & Technology, and Seoul National University, Korea. He is the managing editor of Elsevier's highly ranked Emerging Markets Review, and Journal of International Financial Markets Institutions and Money, and co-editor of Finance Research Letters.



Jonathan's research crosses several disciplines: in the business area he has published work on insider trading and market manipulation, bond pricing and corporate foreign exchange risk management in journals used by the Financial Times for ranking business schools (e.g. Journal of Business Ethics, Journal of Financial and Quantitative Analysis and the Journal of International Business Studies). In addition, he has also published work in leading journals in applied mathematics on complexity in financial time series (e.g. Chaos and Physica A), on stock, gold and energy market integration (Energy Economics, Energy Policy and Resources Policy), and importantly in economic policy on financial market development and societal impacts of foreign direct investment (e.g. Applied Economics and the World Bank Research Observer). His current research is based on assessing the impact on financial markets and investor portfolios of the expected worldwide shift to renewable energy.

**WAGNER, Niklas F.**

University of Passau

See pp. 11.

**BOHÁK, András*****András Bohák: A change of paradigm on fund liquidity risk - from mere compliance to actual management***

The convergence of liquidity-related regulations from the SEC and IOSCO are prompting U.S. funds to find effective ways to manage liquidity risk that satisfies regulators and aligns to their internal mandates. Weighing the SEC's prescriptive approach to liquidity risk management against IOSCO's principles-based approach, funds have to decide which tools to adopt, based on their specific strategy, asset class, jurisdiction, etc. In this talk we discuss the two main types of liquidity risk: dilution and a future liquidity crunch along with key insights into what tools are suitable to manage them. These best practices are the result of decade-long research and collaboration with primary asset managers.

**BOHÁK, András**

is an Executive Director and Head of Risk Management and Liquidity Core Research at MSCI and is based in Budapest. He and his team is responsible for risk methodologies, capital regulation, counterparty credit risk and liquidity risk. Mr. Bohak joined MSCI in 2012 and worked in the securitized products research team before transferring to his current role in 2013. Prior to joining MSCI, Mr. Bohak was a lecturer at the Budapest University of Technology and Economics and he is still teaching part time. Mr. Bohak holds a degree in Computer Science and Industrial Engineering and Management, both from the Budapest University of Technology and Economics.



**LONČARSKI, Igor*****Jonathan A. Batten, Igor Lončarski, Peter G. Szilagyi: Strategic insider trading: Liquidity impacts***

It is well known that opportunistic inside-traders can exploit their private information by trading specific financial contracts, such as options, to gain leveraged monetary benefits. However, the recent conviction of inside-traders Kamay and Hill, who used pre-release national statistics data, to profit in the Australian foreign exchange markets, demonstrates more complex, strategic decision making: while derivatives were used to leverage information, only certain information was actually traded; losses were generated to mask trading activities; and great care was exercised when placing trades to minimise potential losses from offsetting price information arising in other contemporaneous financial markets. Importantly, trading was undertaken during periods of high market liquidity to maximise insider-information advantages. These results are consistent with insiders acting strategically to maximise the value of their information, while also trying to minimise the risk of detection. These actions highlight the limitations to regulatory surveillance in over-the-counter (OTC) markets, while reinforcing the importance of regulatory measures that prevent, or discourage, insider-trading prior to trade execution.

**BATTEN, Jonathan A.**  
University Utara Malaysia  
See pp. 5.

**LONČARSKI, Igor**

is an associate professor of Finance at the Faculty of Economics, University of Ljubljana. He holds a PhD degree from Tilburg University. Igor has published papers in Journal of Business Ethics, Financial Management, Financial Analysts Journal and International Review of Financial Analysis among others. He is the editor-in-chief of Risk Management, a member of the editorial board of the Journal of Behavioral and Experimental Finance, a subject editor of Journal of Multinational Financial Management and an associate editor of the Emerging Markets Review and International Review of Financial Analysis. Igor's current research interests and projects relate to credit risk and credit spreads in the current low interest environment, ethics and insider trading, a general application of textual (sentiment) analysis to finance, as well as multifactor asset pricing models.



**NARAYAN, Seema*****Seema Narayan, Son Nguyen, Ngoc Minh Bui:  
Macroeconomic Determinant of US Corporate Leverage***

This paper examines the behaviour of US corporate leverage to changes in macroeconomic conditions. The study covers the S&P 500 non-financial firms over the period 2000-2018. We examine the influence of macroeconomic factors, namely GDP growth, industrial production growth, inflation and nominal interest rate on leverage. The study also accounts for the effects of the Global Financial Crisis and other financial factors consistent with the trade-off and Pecking order theories. Our analysis distinguishes between corporations with strong balance sheet positions and corporations with weak balance sheet positions. We explain whether the impact of macroeconomic shocks are more strongly felt by highly indebted companies versus those that are less indebted.

**NARAYAN, Seema**

Based at RMIT University, Melbourne Australia, A/Prof. Narayan engages in inter-disciplinary research with over 100 papers published in the subject area of Financial Economics, Economic Development, Energy, International Trade, Time series and Panel Econometric analyses. Her recent collaborative research articles with international and Australian researchers feature in internationally recognised peer review journals, namely, Energy Economics, Emerging Markets Review, International Review of Financial Analysis, International Review of Economics and Finance, Journal of International Financial Markets, Institutions & Money, Pacific-Basin Finance Journal, Journal of Behavioural Finance, Economic Inquiry, and Finance Research Letters. According to Google Scholar, her H-index is 33 and i-10 index is 65.



**SZIMAYER, Alexander**

***Christian Hilpert, Stefan Hirth, Alexander Szimayer:  
Rating Under Asymmetric Information***

We study a dynamic signaling game where a firm, by its decision to stay solvent, signals its quality to a rating agency with the rating feeding back into the firm's cost of capital. Observing the firm's true cash flow blurred by a persistent measurement error, the error-minimizing rating agency learns dynamically through the firm's solvency decision. Firms observed with higher measurement error default earlier, inducing directional learning by successively eliminating measurement errors which are too high to be feasible. In a partially separating perfect Bayesian equilibrium in Markov strategies, the firm employs a measurement-error dependent cut-off strategy. We discuss the extensive economic consequences of such a learning mechanism.

**SZIMAYER, Alexander**

is a Professor of Finance in the School of Business, Economics and Social Sciences at University of Hamburg, Germany. He studied Mathematics and Economics in Heidelberg, Munich, and Bonn, and previously held positions as a Professor of Finance in Bonn, Germany, and as Senior Lecturer of Finance at the Australian National University, Canberra, Australia, as well as the University of Western Australia in Perth, Australia. His main research area are Mathematical Finance, Financial Economics, and Applied Probability.





**UDDIN, Md Hamid*****Md Hamid Uddin, Md Hakim Ali: Cybersecurity Risk and Banking Stability: A thematic review***

Cybersecurity risk shifts the paradigm of banking stability in the global financial market but the body of literature in this field is yet at infancy stage because the researchers did not deeply study this issue before. In this paper, we conduct a thorough review of literature across different thematic areas such as (i) cybersecurity and operational costs, (ii) cybersecurity and institutional performance, (iii) cybersecurity and operational risk, and (iv) cybersecurity disclosure and governance. The review shows that financial institutions emphasize on the investment in cyber technology even though a foolproof security system is unlikely to be achievable with the adoption of leading security system. Therefore, industry practitioners have been exploring cyber risk mitigation measures beyond technological solutions, and the international and national regulatory agencies prescribe different security guidelines for the financial institutions. However, their relevance is unclear without examining the institutions that are more susceptible to cyber-crimes. The literature overall shows a consensus view that cybersecurity breach contributes to the operating risk of the financial institutions. If so, the management of cybersecurity risk could be important for banking stability because the operational failure affects institutional performance.

**UDDIN, Md Hamid**

has PhD in Finance from the National University of Singapore and taught at the same institution, and later at the University of Dhaka, Prince Sultan University, and the University of Sharjah prior to joining at Taylor's University in Malaysia. At Taylor's University, Uddin is working as an Associate Professor of Finance and the Director of Doctoral Program in Business. His research covers bank stability, Islamic debts, corporate ownership, risk-taking, initial public offers, merger and acquisitions, dividends, and capital structure. He is currently leading two research projects. One project is studying the effect of cybersecurity risk on the financial stability of banks and another project is examining the systematic risk factors for investment in the Sukuk (Islamic bond). His other projects include business conglomeration and corporate board independence, political connections of corporate firms and market valuation. While actively engaged in the academic research and teaching, Assoc. Prof Uddin has been serving on the editorial board of Studies in Economics and Finance, and also worked as the ad-hoc reviewer for different academic journals such as Pacific-Basin Finance Journal, Economic Modelling, The World Economy, and Thunderbird International Business Review among others. Besides academic field, he is also engaged with a number of industrial and professional entities and worked as a member of the task force team who developed the first code of corporate governance for Bangladesh.



**WAGNER, Niklas F.**

***Jonathan A. Batten, Harald Kinateder, Niklas F. Wagner: Beating the Average: Equity Premium Variations, Uncertainty and Liquidity***

We study the ability of state-of-the-art liquidity and uncertainty predictors to beat the historical average in forecasting the US equity premium. For this purpose, we apply an out-of-sample predictive regression approach to analyse to statistical accuracy as well as economic gains of equity premium forecasts. Our results underline that during the global financial crisis (GFC) funding liquidity and macroeconomic uncertainty clearly outperform the historical average. In the post-GFC period, all market liquidity predictors show significant predictability. Before the GFC, there is only a mild gain compared to the historical average. Moreover, these predictors also beat forecasts of a classical time series model, except during the GFC.

**BATTEN, Jonathan A.**  
University Utara Malaysia  
See pp. 5.

**WAGNER, Niklas F.**

is Professor of Finance and Financial Control at the University of Passau, Germany. After receiving his PhD in Finance, he held postdoctoral appointments at the Haas School of Business, U.C. Berkeley, and at Stanford GSB, thereafter finishing his habilitation doctoral degree at TU Munich. Professor Wagner has co-authored various contributions in finance, covering research in the areas of asset management, empirical asset pricing, applied financial econometrics as well as derivatives and risk management. Professor Wagner has co-edited book volumes on derivatives and risk management, currently is an associate editor of *Economic Modelling*, *Emerging Markets Review*, *Finance Research Letters*, the *Journal of International Financial Markets, Institutions and Money*, and the *International Review of Financial Analysis*, and is Editor-in-Chief of *Studies in Economics and Finance*.



## SPEAKERS

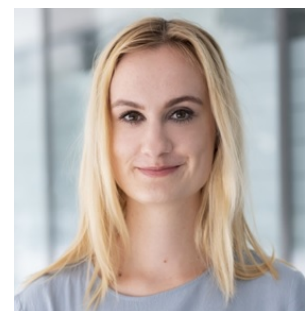
**ANOLICK, Nina; BATTEN, Jonathan A.; KINATEDER, Harald; WAGNER, Niklas F.**

***Abnormal share repurchase returns: Does liquidity risk matter?***

This paper studies the value creation and liquidity effects of share repurchases in Europe. For this purpose, we analyze a comprehensive data set consisting of 1,247 open market share repurchases of eleven European countries during the period from 2000 until 2017. On average we document a positive value creation effect of about 1 percent. Our results provide strong support for the excess cash flow hypothesis. In regard to a macroeconomic explanation there exists a negative relationship between abnormal returns and the market return Stoxx as sentiment indicator. Moreover, the influence of systematic market liquidity on the valuation effect is shown. Whereas liquidity risk as a covariation of stock return and market illiquidity and commonality in risk positively influences the abnormal return. Thereby the flight to liquidity phenomena is proved. The commonality-in-liquidity effect further seems more appropriate since it captures the impact of liquidity risk on country-level as well as on firm-level. Apart from the impact of firm-specific variables, this paper highlights the role of liquidity risk as important factor in determining chances for increased abnormal returns. In the absence of market liquidity, share repurchase announcements offer the chance for liquidating stocks, whereby the hedging against illiquidity is enabled.

**ANOLICK, Nina**

is research assistant at the Chair of Finance and Financial Control and PhD candidate at the Department of Business Administration and Economics at the University of Passau, Germany. She earned a M.Sc. in Accounting, Finance and Taxation from the same institution in 2017. Her field of research is primarily related to corporate finance, capital markets and risk management.



**BATTEN, Jonathan A.**  
University Utara Malaysia  
See pp. 5.

**WAGNER, Niklas F.**  
University of Passau  
See pp. 11.

**BĘDOWSKA-SÓJKA, Barbara; ECHAUST, Krzysztof*****Proxies for extreme illiquidity. The evidence from the Warsaw Stock Exchange***

The aim of the paper is to examine how good are liquidity proxies well known from literature if we focus only on extreme movement in liquidity. The rationale for analysis of extreme illiquidity comes from the fact that investors may not be interested in liquidity when financial market is stable, but their perception change when the market becomes more violent. During crash the statistical and dynamic properties of the market liquidity change dramatically and the bid-ask spreads tend to rise rapidly. We use two-dimensional Extreme Value Copulas and censored log-likelihood optimization procedure with Generalized Pareto Distribution as a marginal distribution to obtain lower tail dependence coefficients as a measures of goodness of liquidity estimates. Our research is based on the Polish stock market in the 11-year period from 2006 to 2016. We find low dependence between analyzed proxies and percent quoted spread benchmark.

**BĘDOWSKA-SÓJKA, Barbara**

is an associate professor at the Department of Econometrics at Poznań University of Economics and Business, Poland. Her main research interests are in financial market microstructure, financial econometrics, volatility modeling and forecasting. Recently she focuses on the measures of volatility and liquidity based on the high frequency data, coherence of the proxies and the dependencies of volatility and liquidity. She has already published in: Finance Research Letters, Emerging Markets Finance and Trade, Finance a uver Czech Journal of Economics and Finance, Eastern European Economics and Dynamic Econometric Models.



**BERLINGER, Edina; KERESZTÚRI, Judit Lilla; VŐNEKI, Tamásné Zsuzsanna**

***A cross-country analysis of operational risk: The effect of the freedom of press***

We replicated the analysis of Li and Moosa (2015) on the country-level factors of operational risk covering more countries (92) in a more recent period (2008-2016) using SAS Global database of all published operational loss events and replacing classical OLS with panel regression. Our results suggest that when modeling operational losses (frequency and severity), governance indicators and living standards (GNI per capita) have very poor explanatory power. GDP matters in all settings as expected, but more importantly, we have to take the freedom of press into consideration, as well, as we can anticipate that in a country where the press is not free, the number of published loss events will be significantly lower. By emphasizing the relevance of the freedom of press, we give new insights into modelling operational risk, which can be generalized to other types of risks, as well. Using our regression model, we can also estimate for each country the size of operational losses that remain hidden because of the suppressed media.

**BERLINGER, Edina**

Corvinus University of Budapest

See pp. 53.

**KERESZTÚRI, Judit Lilla**

is a Senior Lecturer at Corvinus University of Budapest, Department of Finance. She received her PhD in 2017. Her research interest focuses on data analysis and healthcare economics. She has a wide range of experience in IT systems, statistical analysis, and programming.



**VŐNEKI, Tamásné Zsuzsanna**

is currently the Head of Operational Risk Department of OTP Bank and also a PhD student at Corvinus University of Budapest, Doctoral School of Management and Business Administration. Her research area covers operational risk management and crisis management. She has a practical experience of twenty years in these fields both in the financial and corporate sectors.



**BERLINGER, Edina; GOSZTONYI, Márton; POLLÁK, Zoltán*****Interpersonal and interbank lending markets***

Traders on interbank markets manage liquidity shocks stemming from banks' everyday operation. Their work is very similar to housewives living in disadvantaged areas where formal financial services are not available, and people are highly dependent on each other. Poor households use a large variety of tools to deal with the seasonality and the uncertainty of their incomes and expenses, but in this study, we focus only on the operation of informal interpersonal cash borrowing systems. First, we investigate the general practice of households' financial management in Kázsmárk, a small rural village in Hungary with the help of 14 detailed interviews. Secondly, we compare the informal borrowing system in Kázsmárk to the unsecured interbank HUF deposit market. Interestingly, we found more similarities than differences: decision makers behave as market makers as they are willing to lend and to borrow simultaneously, they operate sophisticated risk management systems by rating and monitoring each other, and social collateral tends to substitute physical capital. Finally, we compare the topology of the two lending networks. These findings can help to understand better the informal financial structures, which can serve as a basis for developing new innovative financial products and services targeting this special market segment.

**BERLINGER, Edina**

Corvinus University of Budapest

See pp. 53.

**GOSZTONYI, Márton**

completed his Ph.D degree summa cum laude in Sociology at Corvinus University of Budapest. He is currently lecturing at the Department of Economics and Leadership at Károli Gáspár Reformed University and at the Department of Enterprise and Human Resources at Budapest Business School. His expertise covers socialeconomy, microfinance and participatory action research. Beside his lecturing, he works with social enterprises in disadvantage areas of Hungary as a consultant.

**POLLÁK, Zoltán**

completed his MSc degree summa cum laude in Finance at Corvinus University of Budapest. He is currently doing a Ph.D. at the Department of Finance. He is lecturing financial courses such as Corporate Finance, Financial Risk Management and Financial Calculations. Beside Ph.D. he works as a partner consultant for the International Training Center for Bankers (ITCB), where he also teaches on banking and investment courses.



**BISWAS, Swarnava (Sonny); HORVÁTH, Bálint; ZHAI, Wei**

***Eliminating the tax shield through allowance for corporate equity: Cross-border credit supply effects***

This paper studies how the elimination of the corporate income tax shield through an allowance for corporate equity (ACE) affects banks' cross-border credit allocation. ACE allows banks to deduct a notional interest proportional to their equity from their tax liabilities, making equity relatively cheaper, while simultaneously lowering banks' total funding cost. These effects suggest an expected increase in credit supply, and an ambiguous effect on bank risk taking. Using the introduction of ACE in Belgium in 2006 as an exogenous variation, we find that ACE lead to an overall increase in cross-border credit supply: Belgian banks contributed more within a loan facility relative to other foreign banks after the tax change, and Belgian bank-lead loans had on average 20-40 basis points lower spreads. Interestingly, borrowers of non-lead Belgian banks did not benefit from lower spreads. We find no evidence for increased risk taking, in fact our findings suggest a relatively large increase in cross-border credit supply to safer firms, as well as, firms in non-neighboring countries and with fewer regulatory restrictions. Our findings suggest that tax policy is a potential source of credit market spillovers with important implications for macroeconomic and financial stability.

**HORVÁTH, Bálint L.**

is a Lecturer in Finance (Assistant Professor) at the University of Bristol. His research focuses on various issues in financial economics, including bank regulation; bank lending; and the interaction between public finance and financial stability. He has published in the *Journal of Money, Credit and Banking*; and the *Review of Finance*. Prior to joining Bristol he has worked in the Research Department of the World Bank and obtained his PhD at Tilburg University.



**BOYARCHENKO, Nina; EISENBACH, Thomas; GUPTA, Pooja; SHACHAR, Or; TASSEL, Peter Van**

***Bank-intermediated arbitrage***

We argue that post-crisis bank regulation can explain large, persistent deviations from parity on basis trades requiring leverage. Documenting the financing cost and balance sheet impact on a broad array of basis trades for regulated institutions, we show that the implied return on equity on such trades is considerably lower under post-crisis regulation. In addition, although hedge funds would serve as natural alternative arbitrageurs, we document that funds reliant on leverage from a global systemically important bank suffer significant declines in assets and returns relative to unlevered funds. Thus, post-crisis regulation not only affects the targeted banks directly but also spills over to unregulated firms that rely on bank intermediation for their arbitrage strategies.

**BOYARCHENKO, Nina**

is a senior financial economist in the Research Group of the Federal Reserve Bank of New York. Her current research interests are in fixed income, financial stability and macroprudential regulation. She holds a joint PhD in Finance and Economics from the University of Chicago, Booth School of Business and Department of Economics, as well as a B.S. in Applied Mathematics from University of Texas at Austin.





**BRAUNEIS, Alexander*****A High-Frequency Analysis of Bitcoin Markets***

We study Bitcoin (BTC) exchanges on three continents, Bitfinex, Bitstamp and GDAX. We use a high frequency dataset that contains both transactions data and snapshots of the BTC to US dollar (BTCUSD) order book. The BTCUSD market is highly liquid in terms of bid-ask spreads and order book depth. While spreads are low, we find large differences between the three exchanges in terms of transaction and posted prices. The price differences fall over our sample period meaning that markets are becoming more integrated. We show that exchanges play an increasingly important role in the transfer of BTC. At the end of 2017, exchanges processed roughly 30% of BTC transfers at the end of our sample period this increases to 90%.

**BRAUNEIS, Alexander**

is an Associate Professor at the Department of Finance & Accounting, Alpen-Adria-Universitaet Klagenfurt. He holds a master degree in financial management (University of Graz), his doctoral dissertation dealt with optimal hedging in energy markets. His current main research interests include quantitative and empirical finance, econometrics, simulation based inference, financial literacy, and, particularly, the dynamics of cryptocurrency-markets as well as their microstructure.



ČEHAJIĆ, Aida; KOŠAK, Marko

***Macprudential measures and developments in bank funding costs and funding structure***

We study the impact of macroprudential regulation on bank funding costs by using bank level data in European countries covering the period from 2000 to 2013. Most studies which measure the impact of macroprudential instruments are on aggregate level and assess the effects of macroprudential policy at the level of the entire financial sector. We extend this work by investigating policy effects on bank behavior with bank-level data, focusing on the impact of macroprudential regulation on developments in bank funding structures and bank costs of funding. Preliminary results in dynamic panel setup show significant relationship between macroprudential indices and debt bank funding costs. The usage of macroprudential instruments in advanced economies is mostly associated with the reduction in bank funding costs, which could be a result of bank capitalization enhancement and increase in banks' resilience which alters market's apprehension of a bank's exposure to the external risks. In the case of emerging economies, we received mixed results. We received similar results by further examining the impact of macroprudential regulation on the overall cost of funding, which takes into account both, debt and equity costs.

ČEHAJIĆ, Aida

is a PhD candidate at Faculty of Economics, University of Ljubljana. She holds a master degree with major in Finance from Faculty of Economics, University of Zagreb. She currently works as a teaching assistant on subjects Financial Management, Banking and Bank Management at Faculty of Economics, University of Sarajevo. Her research interests are essentially focused on banking and regulation of the financial sector, while combining both macroeconomic and microeconomic data. Her PhD thesis is associated with the assessment of macroprudential policies impact on bank funding costs, lending and small and medium sized firms in European countries.



ČERNÍK, Ondřej; ČERVENKA, Jan; VALENČÍK, Radim

*Game theoretic analysis of liquidity in financial markets*

Our contribution focuses on impact of changes in liquidity on financial markets on distribution of surplus created by investment transactions. We use game theoretic model of financial market, where owners of investment opportunities make transactions with owners of financial resources to realize the investment and generate income based on that. The game theoretic subject lies in the distribution of the surplus created by the transaction between the owner of the investment opportunity and investor with financial resources accomplished through negotiation process. We extend our research of bargaining according game theoretic approach, where we have identified for example the “snag” effect, in the field of liquidity. There are different reasons for reduced liquidity on the markets leading to various tendencies in surplus distribution. We model scenarios of liquidity and analyze the tendencies for both parties. The main areas covered are evaluation of bargaining power changes related to changes in liquidity on the markets, how liquidity changes can influence acceptability of agreements and how SNAG, the situation, when individual rationality gives different perspective than the collective one. Based on simulations we examine the possible discouragements, which may prevent agreement and options, how to overcome them.

ČERNÍK, Ondřej

works as researcher in R&D for automotive industry since 1997. He design, develop and manufacture vehicles such as cars, buses and trucks and their engineering systems. They are designing now a satellite the SENTINEL-5P. The Sentinel Satellites are developed for the specific needs of the Copernicus program. They provide a unique set of observations for Copernicus. Copernicus is a European Union Programme aimed at developing European information services based on satellite Earth Observation and in situ (non-space) data. He is a PhD candidate at University of Economics Prague, a member of Game theory society. He is dealing with game theory and its booming research area in his free time. They study of the ways with aid of game theory in which interacting choices of economic agents produce outcomes with respect to the preferences (or utilities) of those agents, where the outcomes in question might have been intended by none of the agents. The meaning of this statement will not be clear to the non-expert until each of the italicized words and phrases has been explained and featured in some examples.



ČERVENKA, Jan

is a PhD candidate at University of Finance and Administration Prague, Czech Republic. He has rich experience from business and regional management of multinational corporation. Now he is independent consultant and business coach. His research interests are in game theory, bargaining and its applications in business, economy and finance.



**CHAKRABARTY, Bidisha; HENDERSHOTT, Terrence;  
NAWN, Samarpan; PASCUAL, Roberto**

***Order exposure in high frequency markets***

Theory predicts that uninformed traders hide limit orders to avoid free-option risk while informed traders hide to delay information revelation. Evidence from non-high frequency markets supports the free-option narrative. We study order exposure in high frequency markets using multi-country data that identify hidden order placement by high-frequency traders (HFTs) traders. We find that HFTs use small share sizes to hide orders near the best quotes, their hidden orders have shorter time to completion, higher fill rates, lower implementation shortfall, and overall lower information content compared to other trader types. Collectively our results show that extant models do not explain the order exposure choice of HFTs and calls for new theory. In that direction, we test and find that compared to other traders, HFTs use aggressive hidden limit orders more often to undercut standing orders at or near the best quotes.

**PASCUAL, Roberto**

has a Ph.D. in Economics by Universidad Carlos III de Madrid, Spain. He has been Associate Professor at the Business Department of the University of the Balearic Islands (UIB) since 2006. He is currently teaching Financial Economics and Financial Markets to undergraduate students at UIB, and Market Microstructure courses in Ph.D./MBA programs at the Pompeu Fabra University (Barcelona, 2009-present) and the Autonomous University (Barcelona, 2009-2016). His main area of expertise is Empirical Market Microstructure, covering topics such as high-frequency trading, circuit breakers, liquidity provision in order-driven markets, market-making costs, and limit order book dynamics. His research has been published in academic journals such as the Journal of Financial Markets, Journal of Banking and Finance, Journal of Financial Econometrics, or Energy Economics. He has held visiting research positions at the Salomon Center of the Stern School of Business - New York University, the European Center for Advanced Research in Economics and Statistics (ECARES) - Université Libre de Bruxelles, the International Center for Finance of the Yale School of Management - Yale University, and the Auckland Center for Financial Research, at the Auckland University of Technology.



CSÓKA, Péter; ILLÉS, Ferenc; SOLYMOSI, Tamás

*On the Shapley-value of liability games*

An insolvent firm (country, state, individual, etc.) has liabilities towards a group of creditors and the asset value of the firm must be distributed among the creditors and the firm itself. In this paper, we investigate properties of the Shapley distribution rule that is the Shapley value of a cooperative game we associate to a liability situation. In a liability game, the worth of a coalition is defined as follows: given a coalition and its complement, the firm first makes payments to the creditors in its coalition, up to the total value of their liabilities or the asset value of the firm, and then (if anything left) pays the rest to the creditors in the complementary coalition. We show that the Shapley distribution rule allocates the asset value non-negatively among the creditors and the firm (efficiency) in such a way that no creditor gets more than his liability or the asset value (truncated liabilities boundedness). Moreover, at the Shapley rule, the insolvent firm ends up with strictly positive equity if and only if it has multiple positive liabilities. We also prove that creditors with higher claims get higher payments, but they also give higher debt forgiveness to the firm. Finally, we show that calculating the Shapley payoff to the insolvent firm is NP-hard, henceforth application of the Shapley distribution rule for large liability problems could become computationally laborious.

**CSÓKA, Péter**

is an Associate Professor at the Corvinus University of Budapest, Department of Finance and a senior research fellow at the game theory research group of the Hungarian Academy of Sciences. He received his Ph.D. in economics from Maastricht University in 2008. His research topics include risk measures, risk capital allocation, various aspects of liquidity, and financial networks. He has papers published in journals like Management Science, European Journal of Operational Research, Games and Economic Behaviour, and Journal of Banking and Finance.

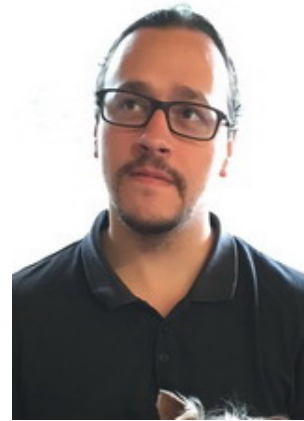


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**ILLÉS, Ferenc**

is a PhD student at Corvinus University of Budapest at the Department of Finance. He received his degree in mathematics at Eötvös Loránd University in 2008. Prior to his PhD studies he worked in the banking industry.

**SOLYMOSI, Tamás**

is a Full Professor at the Corvinus University of Budapest, Department of Operations Research and Actuarial Sciences. He received his Ph.D. in mathematics (game theory) from the University of Illinois at Chicago in 1993. His research focuses on cooperative game theory and its application to various profit / cost allocation problems. He published papers in journals like International Journal of Game Theory, Games and Economic Behavior, European Journal of Operational Research, Annals of Operations Research, Mathematical Programming and Mathematics of Operations Research.



**DOMINICA, James; GOPALASWAMY, Arun Kumar*****Is VC market liquid? Evidence from India***

This paper models investment duration in the Indian VC market, industry wise and exit route wise. We examined 3416 transactions in India, which happened in the time period of 2000-2017, and found that the probability of staying invested for more than 10 years is 70%. Exit probabilities are low in most of the sectors. Investment duration is not positively associated with the investment valuation. Majority of investments are not able to exit because of the illiquidity of VC market.

**GOPALASWAMY, Arun Kumar**

is a Professor at the Department of Management Studies IIT Madras is an applied researcher in the area of finance with specific focus on Corporate Valuation, Corporate Governance, and Development Finance. He also works on Stability of Long-run Relationship in Asian emerging stock markets, and Changing role of market dominance. In addition to these core areas he also works in the area of Health care. He has jointly developed a "user pay-public health care" model and has also implemented on the field in remote rural villages in Tamil Nadu, India. He has co-authored two books one on Management Accounting with Prof. Robert Kaplan of Harvard Business School and Prof. Atkinson of University of Waterloo; and another on "Public perception of security" which encompasses food and health security. He worked on many development projects related to emerging economies pertaining to financial inclusion, migration and remittances, state and non-state justice systems, etc. He is also involved in number of consulting assignments ranging from Multi country - common resource stake-holder developmental issues, economic analysis of large infrastructure projects, organization restructuring, to risk mitigation initiatives of Central Banks in the Asian region. He is also actively involved in the training space and has worked closely with Oil and Gas companies in Asia, Investment Banks, manufacturing entities, Central Banks in the South and East Asian region on risk management and risk mitigation. Prior to joining IIT Madras, Arun worked with "The Economic Times" as a journalist, Management Development Institute (MDI), Gurgaon, and ICRA (A Moody's associate) in the credit rating wing. Arun, also holds a joint position at the School of Management, Asian Institute of Technology, Thailand.



**DÖMÖTÖR, Barbara*****Risk management and corporate size: Results of a survey***

The corporate risk management practice is analysed based on survey data of the Hungarian non-financial sector. The large corporations were approached to find evidence that corporate size impacts the quality of risk management. Some results are similar to that of the international literature: Hungarian firms hedge mainly their FX-exposure and the most widespread is the forward hedge. However corporate size proved not to be correlated to the risk management quality that can be caused by the fact that the investigated corporations are exclusively large companies that do not differ in their risk management activity according to the size.

**DÖMÖTÖR, Barbara**

is an Associate Professor of the Department of Finance at Corvinus University of Budapest (CUB). She received her PhD in 2014 for her thesis modelling corporate hedging behavior. Prior to her recent position she worked for several multinational banks treasury. Her research interest focuses on financial markets, financial risk management and financial regulation.





**EL KHALLOUFI, Hamza; MELLIOS, Constantin*****Optimal asset allocation and consumption under market liquidity risk***

The main objective of this paper is to investigate, in a continuous-time framework, the impact of liquidity risk on optimal asset allocation and consumption. Our model is interesting because it will allow us to compare our results to Merton's results without liquidity risk. Contrary to the existing literature, we explicitly model market liquidity level as a variable and we incorporate it in the stock price. We consider different cases where the investor optimally manages the couple consumption-investment. Following the HJB approach we solve the investor's dynamic optimization program to obtain a non-closed form solution for optimal demand, which can be expressed in terms of a speculative term and a hedging one. Empirical evidence shows that a risk averse investor consume less than Merton case and except for certain liquidity risk level, he/she invest less than Merton case. The results show that a speculator investor consumes more than in Merton's case except when market liquidity risk is high. They also show that when the absolute value of market liquidity level is high he/she invests less than Merton's case. Regardless of the investor attitude, the larger the liquidity risks the smaller the consumption and the optimal investment, and the effect of liquidity risk on the consumption rate and optimal investment decreases as the time to maturity increases.

**EL KHALLOUFI, Hamza**

is a final year PhD researcher in Regulation, liquidity risk and portfolio management at the University of Paris 1 Sorbonne. He holds a research master in Financial Markets from the same university and an engineering master degree from Telecom Bretagne with major in Mathematics applied to Signal Processing and Finance. Hamza is also a research affiliate at the Laboratory of Excellence in Financial Regulation (Labex Refi), a European research center in France dedicated to the evaluation of regulatory policies. Before he get involved in research, Hamza use to work for as quantitative analyst in Asset management. Besides his main Phd research field, he is working on technology application to finance and he is now a research assistant at the Cambridge Centre for Alternative Finance.



**GARABEDIAN, Garo*****A sparse market liquidity measure, and its interactions with monetary policy***

When examining the concept of liquidity, we encounter several dimensions and definitions in the literature, each explaining a specific aspect of liquidity. We incorporate techniques from macroeconomic forecasting and structural analysis to acquire a more sparse representation of liquidity. This common market liquidity measure allows us to examine the impact of monetary policy. Using a Bayesian VAR framework to produce impulse response functions, we look at the impact of monetary policy shocks on liquidity, from the mid-60s up to the end of 2013. We can thus analyse important macro-financial linkages during multiple historical crisis episodes (oil crisis, the 1987 crisis, the Asian crisis, etc.), and additionally inspect the impact of the recent unconventional monetary policy on market liquidity. We find a differential impact of each quantitative easing period on market liquidity, with the strongest impact found during the first period. Finally, moving slightly away from our most sparse representation, by allowing for multiple dimensions of liquidity, gives us more insight on how each underlying component is influenced individually by monetary policy.

**GARABEDIAN, Garo**

is a senior economist within the monetary policy division of the Central Bank of Ireland. He earned his PhD from Ghent University. Research areas include monetary policy/transmission, forecasting, Bayesian econometrics, liquidity, and macro-financial linkages. Recent work has focused on analysing the transmission of unconventional monetary policy during the great recession (as well as historically, during the great depression), forecasting through large scale Bayesian VAR frameworks, and understanding inflation dynamics. Other work examines the importance of liquidity in the context of financial stability, and the nexus with monetary policy.



**HAVRAN, Dániel; KERÉNYI, Péter; VÍG, Attila A.**

***Short food supply chain finance***

Many underdeveloped regions suffer from high unemployment despite having advantageous natural conditions for agricultural production. One major hindering factor is that the primary producers have to sell on depressed price by joining to the long food supply chains of the area. However, there is a high demand for individual food products and services in the close developed urban areas. Short food supply chains match directly or with an intermediary the consumers to the producers and enhance the chance of making new workplaces. Intermediaries such as hotels, restaurants, catering providers or other distributors are usually in a close relationship with their customers, and they make great effort to be embedded in their local society. These co-operations often need capital to invest, but no tailored loan products exist for financing this special business model. This study offers a theoretical model of the funding scheme, that involves producer, integrator, entrepreneur, and lender functions. We describe the feasibility conditions for the project and show how the integrator diminishes the asymmetry of information between the producer and the entrepreneur and between the entrepreneur and the lender by signalling and monitoring.

**HAVRAN, Dániel**

Corvinus University of Budapest  
See pp. 29.

**KERÉNYI, Péter**

is a PhD Student at the Department of Finance at Corvinus University of Budapest. He earned his master degree in financial mathematics at Eötvös Loránd University. He is working on dynamic contract theory.



**VÍG, Attila A.**

is a PhD student at the Department of Finance at Corvinus University of Budapest. His main research area is heterogeneous agent models in finance. He received his bachelor's degree in finance from Corvinus University of Budapest, and his master's degree in financial mathematics from Eötvös Loránd University. His e-mail address is: attila.vig@uni-corvinus.hu



**HAVRAN, Dániel; LAKATOS, Zsolt; PRIMECZ, Henriett*****Women on Board in Central Eastern Europe: the Business Case***

The study investigates the impacts of corporate board gender diversity to the firm performance in six Central-Eastern-European post-communist EU member countries. This region is interesting in terms of gender relations, since the changes in gender roles were not linear, and consequently is different from the evolutionary changes in gender relations in Western countries. Besides its particularity in gender relations, there were essential changes in corporate governance in the last three decades. Not to mention the fact that there were no such studies in the region. While one-tier corporate management system is prevalent in the USA, two-tier system is typical in Western-Europe, both types can be found in Central-Eastern-Europe. In our study operative firm performance (ROA) is explained by the number of women on boards; and control for firm performance and motivation of boards hiring female directors endogeneity. Using the 294 publicly listed companies' data between 2007 and 2016, we found that the higher number of women in the supervisory board positively affect the firm performance. Gender diversity plays no role in the management boards in principle, while in one-tier systems higher women presence decreases firm performance.

**HAVRAN, Dániel**

is an Associate Professor of Finance in the Corvinus Business School at the Corvinus University of Budapest, where he has been a faculty member since 2008. He is the Corvinus Business School's Research Director. Between 2013-2015, he held a postdoctoral researcher position in Institute of Economics at the Hungarian Academy of Sciences. Dániel completed his Ph.D. at Corvinus University of Budapest. His research interests lie in the areas of corporate finance, financial markets, and liquidity ranging from theory to empirical analysis. He is a member of the editorial board of the *Vezetéstudomány* (Budapest Management Review), and an external editor of the *Külgazdaság* (Studies in International Economics). Currently, he is responsible for the research project titled „Financial and Public Services” sponsored by the Higher Education Institutional Excellence Program in Hungary. Dániel is a leader of subjects Corporate Finance, Credit Risk Management and Market liquidity courses.

**LAKATOS, Zsolt**

is a Ph.D. student at the Department of Finance of Corvinus University of Budapest. He completed his Master's Degree in Finance at Corvinus University. His research interest is the study of the connection between corporate governance and firm performance in the Eastern Central European Region. He has prior working experience in brokerage and insurance business. He is lecturing financial courses like corporate finance and company valuation.



**HOLLÓ, László*****Portfolio level liquidity – how to account for correlations?***

Market liquidity risk measures how easily we can sell or buy a given size in a security in a timely and cost effective manner. Single security liquidity models assume trading only on that one particular security. But how can we aggregate asset level liquidity to model portfolio liquidity risk? Ignoring cross security effects underestimates the overall risk since trading in similar assets drains liquidity from a partially shared pool. In this talk, we will discuss a proposal on how to account for this competing liquidity, focusing on the OTC bond market.

**HOLLÓ, László**

is a Senior Associate in the Risk Management Research team based in Budapest. The focus of his research is liquidity-related regulation and transaction cost modelling. Mr. Hollo joined MSCI's pricing research team in 2016 and transferred to liquidity research in 2017, slightly after the publication of the SEC's final rules on the Investment Company Liquidity Risk Management Program. Prior to joining MSCI, Mr. Hollo was a junior researcher at Ecole Normale Supérieure de Paris and the Wigner Research Institute of the Hungarian Academy of Sciences. Mr. Hollo holds master's degree in Physics. In 2016, he completed his PhD in Theoretical Physics, summa cum laude.



**HORVATH, Roman; KASZAB, Lorant**

***Equity premium and monetary policy in a model with limited asset market participation***

In a model with Ricardian and non-Ricardian households, we show that monetary policy shocks cause an endogenous redistribution of income from non-Ricardians to Ricardians, whose consumption comoves more tightly with asset returns, giving rise to large equity premia.

**KASZAB, Lorant**

has a PhD in Economics from Cardiff University and currently research expert at the Central Bank of Hungary. His research focuses on the interaction of monetary and fiscal policy in DSGE models as well as macro-finance with special focus on fixed income modelling. Currently has a revise and resubmit at Journal of Money, Credit and Banking, Journal of Macroeconomics and Economic Modelling.



**HRYCKIEWICZ, Aneta; MIELUS, Piotr; SKORULSKA, Karolina; SNARSKA, Małgorzata**

***Does a bank levy increase frictions on the interbank market?***

The crisis has shown that a drop in liquidity, as well as the shortened maturity of interbank transactions, has caused many problems for banks. We analyse how the introduction of a bank levy on bank assets in Poland has affected the interbank market, as well as money market pricing. Analysing daily volume and number of interbank transactions, along with daily bank quotes, we document that the bank levy has significantly reduced trading intensity on the market, shortening the maturity of transactions. We also find that it has increased the dispersion of bank quotes for short-term transactions, while at the same time “killing” interbank long-term transactions, including the pricing for this market. The regulators should re-think the nature of bank levies in several countries, as they negatively affect the functioning of the interbank market and brings into question the credibility of interbank benchmarks.

**MIELUS, Piotr**

is assistant professor at the Warsaw School of Economics, doctor of Economic Sciences, coordinator of a doctoral programme at the Collegium of Economic Analysis. Co-creator of the Polish derivative market, active in the financial market since 1996 in numerous banks as market maker and head of trading. Since 2012 cooperating with the Gdansk Institute for Market Economics where he implemented the Money Market Monitoring System. Member of the Reference Rates Council in 2013-2015 and a member of the Financial Market Association ACI Poland, co-author of the Polish version of the International Code of Conduct and Practice of the Financial Markets. The author of two books: “Currency option market in Poland” and “Market making on the over-the counter financial markets”.



**KISS, Hubert János; RODRIGUEZ-LARA, Ismael; ROSA-GARCIA, Alfonso*****Who runs first to the bank?***

We study theoretically and experimentally how lines form endogenously in front of banks during bank run episodes. In our model, depositors make two decisions: 1) how much effort they put to arrive earlier to the bank (this determines the line); 2) to withdraw or keep the funds deposited (this determines if a bank run arises or not). In simultaneous decisions a la Diamond and Dybvig, the formation of the line determines who are able to withdraw their deposits in the case of a bank run. In sequential decisions where actions of others are observed, depositors who rush and withdraw can provoke bank runs due to the panic on those who observe them. We test the theoretical and behavioral predictions in the lab, where we gather extensive data on individual traits (socio-demographics, uncertainty attitudes and personality traits) to account for heterogeneity of the personal characteristics of the depositors. We find no significant differences in the effort to arrive early to the bank (captured by the bids) neither across the information environments, nor according to the liquidity needs of the depositors. Even though we consider a wide range of individual traits, they do not seem to have a consistent effect on the level of the effort. However some patterns of behavior are identified: on the one hand, irrational depositors (those who choose dominated withdrawal strategies) tend to make more efforts to arrive early to the bank when withdrawal decisions are observable. On the other hand, we provide evidence of depositors trying to avoid panic bank runs, arriving early at the bank to make her decision of keeping the money visible to subsequent depositors.

**KISS, Hubert János**

graduated at the Budapest University of Economic Sciences in 2003. After two years working as a financial analyst, he went on to study at the Universidad de Alicante to obtain a PhD in Economics in 2009. After he worked as an assistant professor for two years at the Universidad Autónoma de Madrid. In 2011 he returned to Hungary and has been teaching in the Department of Economics at Eötvös Loránd University. He joined the Institute of Economics in 2013. His main research interests are bank runs, experimental and behavioral economics.





**KROHN, Ingomar; MUELLER, Philippe; WHELAN, Paul**

***FX premia around the clock***

We dissect return dynamics in the foreign exchange market into different components over the 24-hour day and revisit well-known trading strategies such as carry and dollar carry. Using twenty-four years of high-frequency data on G10 currencies we unveil a distinct ‘W’ intraday pattern of the dollar portfolio. We show that positive average returns for going long foreign currencies are almost entirely generated during U.S. main trading hours. Overnight, currencies collectively depreciate against the U.S. dollar. Further, we document that 75% of the high-minus-low portfolio return from a standard carry trade strategy and almost 80% of dollar carry returns are generated during the day. As the value of the U.S. dollar tends to increase outside of main U.S. trading hours, both popular strategies generate insignificant positive or negative returns in the overnight period. This new evidence sheds light on our understanding of currency markets and has important implications for future theoretical and empirical work.

**KROHN, Ingomar**

is a postdoctoral researcher in Finance at Copenhagen Business School. Before joining CBS, he was a PhD student at Warwick Business School and studied finance and economics at Heidelberg University and the University of Nottingham. His research interests are in the area of international finance, macro-finance, empirical asset pricing, and market microstructure. In his current work, Ingomar analyses liquidity conditions, trading dynamics, and intraday return movements in the foreign exchange market.



**WHELAN, Paul**

Copenhagen Business School  
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LEE, Tomy

***Why trade over-the-counter? When investors want price discrimination***

Despite the availability of low-cost exchanges, over-the-counter (OTC) trading is pervasive for most assets. We explain the prevalence of OTC trading using a model of adverse selection, in which informed and uninformed investors choose to trade over-the-counter or on an exchange. OTC dealers' ability to price discriminate allows them to imperfectly cream-skin the uninformed investors from the exchange. Assets with wider bid-ask spreads on exchanges are predicted to have a higher proportion of total volume that is traded on exchanges, as supported by evidence from US stocks. Having an OTC market can reduce welfare while increasing total trade volume and decreasing average bid-ask spread. Specifically, for assets that are mostly traded over-the-counter (such as swaps and bonds), having the OTC market actually harms welfare. Our results justify recent policies that seek to end OTC trading in such assets.

LEE, Tomy

is an Assistant Professor in the Department of Economics and Business at the Central European University since 2018. He received his MA and PhD in economics from the University of Toronto. His primary research interests are in over-the-counter markets, information and learning in finance, and applied theory.



**LEOMBRONI, Matteo; VEDOLIN, Andrea; VENTER, Gyuri; WHELAN, Paul**

***Central Bank communication and the yield curve***

Using the institutional features of ECB monetary policy announcements, we provide direct evidence for the risk premium channel of central bank communication. We show that on days when the ECB announces its monetary policy almost all of the variation of bond yields is driven by communication. Moreover, while the effect of monetary policy is homogeneous across countries before the European debt crisis, we document dramatic differences post crisis and show that communication shocks drive a wedge between peripheral and core yields. We empirically link the periphery-core wedge to breakup and credit risk premia and study this channel theoretically through the lens of an equilibrium model in which central bank communication reveals information about the state of the union.

**VENTER, Gyuri**

Copenhagen Business School  
See pp. 42.

**WHELAN, Paul**

Paul Whelan's research interests are in the areas of theoretical and empirical asset pricing with a specific focus in fixed income markets. Paul has presented at American Finance Association, Western Finance Association, and European Finance Association meetings, and has received several awards for his research, including GARP Risk Management Research Award (2013), AFA Doctoral Student Travel Grant (2013), Q-Group Grant Award (2011), and Carefin-Bocconi Research in Finance Grant Award (2010).



MARozVA, Godfrey; MAKINA, Daniel

***Liquidity risk and asset liability mismatches: Evidence from South Africa***

Using a panel of South African banks coming the period 2005–2015, we further develop, validate and test the liability mismatch index (LMI) developed by Brunnermeier, Krishnamurthy and Gorton (2012). Deviating from their approach, we develop measures of liquidity that integrate both market liquidity and funding liquidity. Two liquidity measures developed are the bank liquidity mismatch index (BLMI) and the aggregate liquidity mismatch index (ALMI) whose performances are compared and contrasted with the Basel III liquidity measures and traditional liquidity measures. Overall, the two constructed liquidity indices perform better than other liquidity measures. Unlike the LMI, the BLMI and ALMI can be used to evaluate the liquidity of a given bank under liquidity stress events. Our empirical results, though not significant, also show that banks increase their liquidity buffers during times of turmoil as both BLMI and ALMI improved during the period 2007–2009.

MARozVA, Godfrey

is a senior Lecturer in the Department of Finance, Risk Management and Banking in the College of Economic and Management Sciences at the University of South Africa. He is a holder of a PhD in Finance, a Masters of Science in Banking and Financial Services, a Bachelor of Commerce Honours degree in Finance and Banking and he is a Chartered Financial Analyst (CFA) Charter holder. Godfrey worked in a quoted financial institution as a treasury and investments manager for 7 years, before he joined the University of South Africa in 2010. His skills and experience are essential in fostering the University of South Africa's academic programmes and research work in Investments, Risk management, Banking and Finance. Godfrey have published 7 articles in accredited journals.



**MOLNÁR, György; HAVAS, Attila*****Escaping from the poverty trap with social innovation: the Way-out program in Hungary***

The paper analyses the specific features of social innovation aimed at helping people in escaping from the poverty trap, using the example of a social microcredit programme. It stresses the impacts of interactions between institutions, networks and cognitive frames, showing that the complex nature of the reproduction of marginalisation requires complex interventions, including empowering and capability building. It presents examples of failed, one-sided interventions. In the case of socially excluded groups a loan by itself is not sufficient to support the establishment of viable businesses in the formal economy. The less initial endowment project participants have, the more effort and resources are needed to enable them to run their own business. Consequently, different forms of capability building are indispensable for a successful social innovation. The paper stresses that social innovation – just as business innovation – is a cumulative, path-dependent, and interactive process involving different types of actors whose diverse knowledge and accumulated experience are crucial for the successful introduction of new solutions. It also highlights several policy and practical implications, including trade-offs to be considered when planning and implementing social innovation for marginalised.

**MOLNÁR, György**

is Senior Research Fellow and the head of the Public economics and public policy research unit at the Centre for Economic and Regional Studies, Hungarian Academy of Sciences. His research interest covers welfare economics, subjective well-being, poverty, social innovation and social microcredit. As a volunteer, he is an expert and board member of a Hungarian microfinance initiative, Kiútprogram, working mainly in poor Roma neighbourhoods. E-mail: molnar@econ.core.hu

**HAVAS, Attila**

is a Senior Research Fellow at the Institute of Economics, Hungarian Academy of Sciences, regional editor of International Journal of Foresight and Innovation Policy, and member of the editorial board of Foresight and STI Governance. His academic interests are in economics of innovation, national and sectoral innovation systems, theory and practice of innovation policy, (technology) foresight as a policy tool, and social innovation. He has participated in a number of international research projects on STI policies, innovation and transition, social innovation, as well as on foresight and prospective analyses, advised foresight programmes in several countries, been a member of EU expert groups, and invited speaker at international conferences.



**NAGY, László; ORMOS, Mihály*****Volatility surface calibration in illiquid market environment***

In this paper, we show the fragility of widely-used Stochastic Volatility Inspired (SVI) methodology in option pricing. Our results highlight the sensitivity of SVI to the fitting penalty function. We compare different weight functions and propose to use the implied vega weights. Moreover, we unveil the relationship between vega weights and the minimization task of observed and fitted price differences. Besides, we show that implied vega weights can stabilize SVI surfaces in illiquid market conditions.

**NAGY, László**

is a PhD student at the Department of Finance, Institute of Business at the School of Economic and Social Sciences, Budapest University of Technology and Economics. His main area of research is financial risk measures and asset pricing. László earned his BSc and MSc in Mathematics with major of financial mathematics at the School of Natural Sciences at Budapest University of Technology and Economics. He is teaching investments and working on his PhD thesis. Before his PhD studies he worked at Morgan Stanley on risk modeling.

**ORMOS, Mihály**

is a Professor of Finance at the Department of Finance and Accounting at Eotvos Lorand University, Budapest, Hungary. Before that he was a Professor of Finance at the Department of Finance at the Budapest University of Technology and Economics, Hungary. His area of research is financial economics especially asset pricing, risk measures, risk perception and behavioral finance. His main contribution to financial risks is entropy as a risk measure and expected downside risk based asset pricing. He serves as one of the contributing editors at Eastern European Economics published by Taylor and Francis. His teaching activities concentrate on financial economics, investments and accounting. Prof. Ormos published his research results in Journal of Banking and Finance, Quantitative Finance, Finance Research Letters, Economic Modelling, Empirica, Eastern European Economics, Baltic Journal of Economics, PLoS One, Acta Oeconomica and Economic Systems amongst others.



OEHMKE, Martin; ZAWADOWSKI, Ádám

*Optimal Complexity in Financial Markets*

This paper presents an equilibrium theory of potentially useful complexity of financial and non-financial products. Complex products generate higher potential surplus, but require more attention from the consumer. Because consumer attention is limited and a common resource across products, an attention externality arises: Sellers distort the complexity of their own products to grab attention from other products. This externality can lead to too much or too little complexity depending on product features and the attention constraint of the consumer. We apply the model to show why certain financial products sold to retail consumers, such as deposits and pension products, are too complex or too simple.

ZAWADOWSKI, Ádám

is an Associate Professor in the Department of Economics and Business at the Central European University since 2015. Prior to joining CEU, he was an Assistant Professor of Finance at Boston University Questrom School of Business. He has received his MSc from Budapest University of Technology and Economics in engineering-physics, his MA from Central European University in economics and his PhD from Princeton University in economics. His primary research interest is in financial frictions, attention allocation, liquidity, credit default swaps, and financial networks.



PARIÈS, Matthieu Darracq; VANDEWEYER, Quentin

*A macro-financial model of monetary policies with leveraged intermediaries*

This article presents a macro-financial model in which the balance sheet of leveraged intermediaries plays the key role in the transmission of monetary policies. We introduce frictions in an inter-bank money market to create a role for central bank reserves as the ultimate mean of settlement in a standard intermediary-asset pricing model. This simple addition produces a unifying theory rationalizing simultaneously how (i) heightened frictions in the money market affect asset prices and the supply of credit (ii) conventional monetary policy is implemented by varying the supply of excess reserves and (iii) unconventional monetary policy can ease a decline in asset prices by extracting liquidity risk during a liquidity crisis.

VANDEWEYER, Quentin

is an economist working at the research department of the ECB while finishing its PhD from Sciences Po Paris. Quentin holds a master of science from Ecole Polytechnique and was a beneficiary of the Macro-Financial Modelling Group (University of Chicago and Sloan Foundation) in 2017-2018. His research interests lie at the intersection of Macroeconomics, Monetary Economics, Finance and Computational Methods. In particular, he has been focussed on integrating liquidity frictions in macro-financial models to improve our understanding of how monetary policy may affect portfolio decisions, asset prices and the business cycle.





PÁLVÖLGYI, Dömötör; VENTER, Gyuri

***Multiple Equilibria in Noisy Rational Expectations Economies***

This paper studies equilibrium uniqueness in standard noisy rational expectations economies with asymmetric or differential information ‘a la Grossman and Stiglitz (1980, GS) and Hellwig (1980, H). We show that the standard linear equilibrium of the GS model is the unique equilibrium with a continuous price function. However, we also construct a tractable class of equilibria with discontinuous prices that have very different economic implications, including (i) jumps and crashes, (ii) significant revisions in uninformed belief due to small changes in the market price, (iii) “upward-sloping” demand curves, (iv) higher prices leading to future returns that are higher in expectation (price drift) and (v) more positively skewed. Discontinuous equilibria can be arbitrarily close to being fully revealing. Finally, discontinuous equilibria with the same construction also exist in the H model.

**VENTER, Gyuri**

is an Assistant Professor of Finance at the Copenhagen Business School. His research focuses on the asset pricing implications of market frictions, market microstructure, and information economics. His work has been published in the *Review of Financial Studies*. He received his PhD in Finance from the London School of Economics and Political Science, and his MSc in Economics from the Corvinus University of Budapest.



**PETRÓCZY, Dóra Gréta*****An alternative quality of life ranking on the basis of remittances***

Country rankings seem to be increasingly popular in economics and can often have huge impacts on policy and government strategies. However, most of them are composite indices, a construction which remains highly controversial due to the arbitrary selection of criteria and component weights. There exists an alternative solution, that is, to apply a parameter-free algorithm on an appropriate dataset. One way to measure the perceptions of people is to observe their decisions on important questions of life such as working abroad. Using bilateral remittances between European countries and other regions of the world for this purpose, I apply the least squares method to adjust net remittances by taking the whole network of remittance flows into account. The suggested method is independent of country sizes and satisfies the bridge country property. The ranking is relatively robust across the years. While it is clear that my ranking cannot immediately substitute all of the others, it reveals a crucial aspect of life quality and may become an alternative to various composite indices.

**PETRÓCZY, Dóra Gréta**

earned her master's degree in economic analysis at Eötvös Loránd University in 2012. Currently, she pursues PhD studies in Economics at the Corvinus University of Budapest and is an assistant lecturer at the Corvinus University of Budapest, Department of Finance. She is interested in game theory, voting power, and ranking. One of her recent research project is aimed at ranking countries on the basis of bilateral remittances.



**SIERADZKI, Rafał; THLON, Michał*****Corporate credit risk modelling: sectoral approach***

This paper reviews the most popular methods used in measurement of credit risk and provides an analysis of relative drawbacks and advantages of each of them. Methods based on discriminant analysis, credit migration approach, option pricing, actuarial approach and discrete time multi-period models where default probabilities are conditional on the macro-variables like unemployment, interest rates level, the growth rate of the economy are reviewed. Some models are purely discriminatory like Altman's Z-score model and some are more eclectic and try to merge discriminatory approach and for example option pricing approach to include volatility element. What is important, most of the studies treat companies from different economy sectors in the same way. We claim that it is not right, because some sectors are procyclical (like construction), some are countercyclical (like debt collection) and some are widely acyclical (like utilities). In this article, we propose a new model which takes into consideration sectoral differences and which also accounts for non-linearities.

**SIERADZKI, Rafał**

is an Assistant Professor of Finance at the Department of Economics, Cracow University of Economics (Poland). Before he worked as an economic expert in the Financial System Department at National Bank of Poland. His research areas cover equity, bond and derivatives markets, credit risk modelling and relations between financial markets and the real economy. He is an author and co-author of many monographs, articles and reports and a court expert in financial markets and risk management.

**THLON, Michał**

is Assistant Professor of Finance at the Department of Economics, Cracow University of Economics (Poland). In 2010 he defended his doctoral thesis on operational risk management in enterprises. He is a court expert in banking, compliance and risk management. He is a member of GARP and PRMIA. Since 2013 he was in the position of Chief Economist of Polish Association of Employers and Pig Producers. His articles have been published in various international journals, such as the Geneva Papers on Risk and Insurance. He is the coordinator or an expert for over 50 research projects at the international or national level in the field of risk management, entrepreneurship, innovation and business environment. He is author and co-author of over 100 monographs, articles, advisory reports and research papers. His research interests focus on financial econometrics, pricing of derivatives, financial economics and risk management.



SIIKANEN, Milla; NÖGEL, Ulrich; KANNIAINEN, Juho

***Liquidity in the FX market: empirical evidence from an aggregator***

In foreign exchange (FX) trading, an aggregator is used to connect traders with liquidity providers (LPs). In an aggregator, a trader receives a continuous stream of bid and ask quotes from a predefined set of LPs, and the difference between the best bid and ask prices over a set of liquidity streams is called an inside spread. In this paper, we empirically study liquidity in an FX aggregator and show that, on average, traders obtain a relatively tight spread already with four or five streams; the use of more streams yields a marginal benefit only. For given numbers of liquidity streams, we determine the optimal combinations of streams minimizing the spread. Our findings indicate that most of the traders could—at least in theory—reduce the average spread by more than half with the optimal combination of streams, and a trader could save up to \$0.18 basis points per €1 traded. However, traders may not be able to fully exploit improvements in spreads because, in practice, the liquidity streams are set by LPs and not by the trader. In addition, we find that Oomen’s [Quantitative Finance, 17, 3, (2017)] model fits our empirical data accurately, even under simplistic assumptions.

SIIKANEN, Milla

is a doctoral candidate at Tampere University of Technology and her expected graduation is by the end of 2018. Her empirical research has considered liquidity in stock limit order books, focusing on times around information arrivals. With the research presented at the 2018 AFML Conference, she is extending her research on liquidity in stock markets to liquidity in the FX market. The paper presented provides empirical insights on liquidity in an aggregator, a typical trading technology in FX trading.



**SZANYI, Csilla; SZODORAI, Melinda; VÁRADI, Kata**

***An empirical study on the effect of margin requirement changes on the market liquidity***

Initial margin calculation methods and its effects on the liquidity of the markets have risen in importance following the rise of Central Counterparties to clear OTC derivatives. Recent legislation also requires bilateral margining for uncleared derivatives between financial counterparties. Empirical results regarding the impact of margin changes on price volatility are mixed, these effects on the market liquidity therefore vary. Our paper will focus on the correlation between margin requirement changes and its effects on the market volatility. The study relies on the analysis of one of the most liquid central European stocks and the Hungarian equity market, the OTP stocks. We will analyze the historical margin requirements of the stock applied by the KELER CCP, and the historical liquidity of the stock as well. We first use the event study method to examine the impact of margin changes on trading activities, price volatility, and market liquidity. We also analyze the time series data with the GARCH process to estimate volatility in the financial market as a result of the changes in the margin requirements, and we also use EGARCH model to address volatility clustering in an innovations process.

**SZANYI, Csilla**

is a senior risk controller at KELER CCP. She majored in finance at Corvinus University of Budapest, at the Department of Finance in 2010. Her main responsibilities at KELER CCP are market risk management on the cleared capital and energy markets, and the evolvement of the risk management framework considering the compliance with EU and Hungarian regulations.



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**SZODORAI, Melinda**

is a risk analyst at KELER CCP. Her main responsibilities are operational risk management and regulatory reporting. She majored in finance and management at Babes-Bolyai University, Faculty of Economics and Business Administration (2013). Currently she is also a PhD student at the Corvinus University of Budapest. Her main research areas are market liquidity and market infrastructures.

**VÁRADI, Kata**

is an Associate Professor at the Corvinus University of Budapest (CUB), at the Department of Finance. She graduated also at the CUB in 2009, and after it obtained a PhD in 2012. Her main research areas are market liquidity, central counterparties, capital structure and risk management.



**TAKINO, Kazuhiro*****A market making of derivatives markets under non-cash collateralization***

We consider a financial market model where both cash and non-cash collaterals are posted when participants enter the derivatives contract. Then, we investigate the effect of the combination of cash and a non-cash collateral on the market size of derivatives contracts by using a derivatives pricing formula and a microeconomics analysis. The result of this study implicitly verifies why the derivatives market (or central counterparty) should provide the participants an opportunity to choose the type of the collateral asset. We also examine the impact of the collateral combination on the expected utility for the participant who posts collateral. This tries to unveil which asset the market participant prefers to.

**TAKINO, Kazuhiro**

is a professor at NUCB Business School. His expertise is the derivatives pricing. Recently, he studies how the effects of regulations in OTC derivatives transaction on the derivatives markets by using a microeconomics analysis. He has received Ph.D. in Economics at Osaka University in 2011.



**VARGA, György*****Liquidity Premium and Buyback Auctions in Domestic Brazilian Government Bonds***

This article investigates the return differential between liquid and illiquid Brazilian Government bonds, to find out if there is a liquidity premium among this asset like the evidence for the United States. We also investigate the effect of the Brazilian Treasury buyback auctions on the liquidity premium and the market impact cost by the Treasury. The result does not show positive or negative significant premium even when the bonds object of the buyback where excluded.

**VARGA, György**

has a B.S. in Economics (UFRJ), an M.S. in Economy from EPGE/Fundação Getúlio Vargas and a PhD in Economics from EPGE/Fundação Getúlio Vargas. Mr. Varga is currently a Partner at FCE Consultoria, where he conducts research and provides consulting and training in Applied Finances. His experience includes Brazilian and multinational banks and teaching at many Brazilian institutions. He has several articles published in scientific magazines. His interests include topics related to fixed income, derivatives, equity, and mutual funds.





**WEIGERDING, Michael*****Liquidity drivers on the covered bond market***

This paper analyzes the drivers of bond market liquidity. The use of a unique data set of global covered bonds allows to reveal three effects which have not been in the focus before: primary market supply, initial demand and allocation, and seasonality. Liquidity is elevated around the issue dates of paper from the same issuer or the same country. Liquidity is higher if investor interest during the bond's initial offering (IPO) is large and if the allocation is biased towards investors with a higher propensity to trading in secondary markets. While liquidity is higher at the start of the year and around the turn-of-the-month, it is lower towards quarter and year-ends. Familiar liquidity factors such as bond size, age and risk drive long-term liquidity, but the new ones are likewise important. Seasonality and supply are crucial determinants in the short run as they markedly influence liquidity in specific weeks. Demand and allocation during the bond IPO are interesting since they are affected by market participants.

**WEIGERDING, Michael**

is a senior research analyst at German Commerzbank. He has joined the bank in 2013 and has enrolled in a PhD programme of the University of Liechtenstein three years later. He specialised in covered bonds and market liquidity. Apart from a three-digit number of articles for sell-side research publications, several contributions to books, newspapers and websites, Michael published a number of peer-reviewed papers on microstructural topics in international academic journals. Earlier, Michael has worked in investment advisory and credit officer roles. He holds a Master of Science in Finance with distinction from the University of Liechtenstein.



## POSTER PRESENTERS

ANEJA, Arun P.; KUPKA, Karel; PAL, Rudrajeet; MILITKY, Jiri; SALFICKA, Marcela

*Statistical models for rating financial performance and health of companies: New business comfort paradigm*

Dynamic behavior of the scalar financial-statements-based measures may provide a tool to forecast development of a business subject. In the first part of the paper we develop and discuss ways, methods, and outcomes of such dynamic analysis with respect to discrimination power. We also pay some attention to recent development in discrimination and classification methods. In the second part, we reverse the usual approach. Instead of analyzing positions and dynamics, or trajectories of individual companies within a predefined abstract space of economic and financial variables in which the companies live, we rather use the ensemble behaviour of business subjects (perhaps sector-dependent) in a certain geo-political territory to define the space itself and also its geometry. The geometry of the space can then be abstracted from the economical subjects and as such it describes in a relatively simple way some attributes of the respective geo-political territory at a given time (year) in terms of a vector field. When we apply integral multivariate second-order models, we can basically define convex, concave and planar geometry of the space and also define a new scalar variable called “Business Comfort” as a function of the space. We suggest that the geometry of the space which constitutes a business environment allowing companies to maximize their “Business Comfort” function. As such it could be used to classify, or rate general business environment in different territories at a given time, or analyze the environment in one selected territory during some time period to early-detect possible approaching instability.

**KUPKA, Karel**

is the founder and CEO of TriloByte Statistical Software. Author of over 50 computational statistical and AI software modules in QC-Expert statistical software package with many applications in industry, research and science, chairman of the Data Analysis Conference organized by TriloByte since 1992 and author of many scientific papers on statistical data analysis and statistical modelling in finance, economy, technology, optimization, quality control, pharmaceutical, medicine, bioscience, chemistry, etc. He is a senior lecturer in graduate statistical courses and seminars Statistical Data Analysis, programming and modelling. He is an elected member of ISO National statistical committee and elected member of the International Statistical Institute.



**BĘDOWSKA-SÓJKA, Barbara; ECHAUST, Krzysztof**

***The differences in liquidity: Developed versus emerging European markets***

Our study is aimed to compare liquidity indexes measured on the European stock markets in different stage of development. We consider indexes built for each market separately and based on the generally available daily data. The indexes are focused on the biggest and most actively traded stocks. We examine if there exist the commonality between the indexes, and what is the main force behind their movement, if any. The sample is based on the stocks listed in the countries included in two broad stock market indexes from MSCI group: emerging Europe (Russia, Turkey, Hungary, Czech Republic, Poland and Greece) and Europe developed (United Kingdom, Germany, France, Switzerland and Netherlands). We use various analytic techniques to examine the dynamics and interdependencies between the markets and extract the main factors lying behind the liquidity dynamics: the correlation analysis, the dendrograms that help to illustrate clusters and the principal component analysis. We find significant interdependence between most considered indexes within each group. Additionally, we find linkages between liquidity measures in developed and emerging markets.

**BĘDOWSKA-SÓJKA, Barbara**

Poznań University of Economics and Business

See pp. 13.

**BERLINGER, Edina; DÖMÖTÖR, Barbara; SZŰCS, Balázs Árpád*****Path dependent risk taking***

We examine the behavior of all corporate and institutional clients of the Hungarian branch of a commercial bank (ING Bank N. V.) and analyze the extent to which risk exposures (i.e. the absolute value of FX forward positions expressed in HUF) can be explained by the estimated profits/losses of the clients in the previous days. We find that previous losses were in a significant negative relationship with the risk exposure of the next period, while previous profits were weakly positively correlated to them. This V-shape relationship suggests that clients tend to increase their position both after large losses and large profits, which cannot be explained by rational decision making, but are consistent with the so-called break-even and house-money effects similarly to (Post et al. 2008). As irrational behavioral effects destroy value both at individual and social levels, investors and regulators should pay attention to these symptoms.

**BERLINGER, Edina**

is a Professor at Corvinus University of Budapest and she is also the Head of Department of Finance. Her expertise covers asset pricing and risk management. She has participated in several research and consultancy projects including design and implementation of student loan schemes, a research fellowship at Collegium Budapest, Institute for Advanced Studies, Momentum Program, and Bolyai János Scholarship of the Hungarian Academy of Sciences. Presently, she is managing a research program related to social innovation.

**DÖMÖTÖR, Barbara**

Corvinus University of Budapest  
See pp. 25.

**SZŰCS, Balázs Árpád**

is a senior lecturer at the Department of Finance of Corvinus University of Budapest. He has academic publications in the fields of intra-day forecasting of stock volumes, real options, market microstructure, market liquidity and behavioural finance.



**BIHARY, Zsolt; KERÉNYI, Péter**

***Gig Economy: A Dynamic Principal-Agent Model***

The gig economy, where employees take short-term, project-based jobs, is increasingly spreading all over the world. In this paper we investigate the employer's and the worker's behavior in the gig economy with a dynamic principal-agent model. In our proposed model the worker's previous decisions influence his later decisions through his dynamically changing participation constraint. He accepts the contract offered by the employer when his expected utility is higher than his irrational valuation of his effort's worth. This reference point is based on wages he achieved in previous rounds. We formulate the employer's stochastic control problem, and derive the solution in the deterministic limit. We obtain the feasible net wage of the worker, and the profit of the employer. Workers who can afford to go unemployed and need not take a gig at all costs, will realize high net wages. Conversely, far-sighted employers who can afford to stall production, will obtain high profits.

**BIHARY, Zsolt**

is an Associate Professor of the Department of Finance at Corvinus University of Budapest (CUB). Previously he worked as a researcher in physical chemistry, and as a financial modeler at Morgan Stanley. His research interest focuses on portfolio optimization, evolutionary finance and financial networks.



**KERÉNYI, Péter**

Corvinus University of Budapest  
See pp. 28.

**BIHARY, Zsolt; VÍG, Attila A.**

***Analytic solutions in a continuous-time financial market model***

We propose a heterogeneous agent market model (HAM) in continuous time. Our approach is similar to that of He and Zheng (2010), but in our specification the technical trader uses an exponentially weighted moving average of daily returns in a linear fashion. Most of the related literature explores stability, price dynamics and profitability either within only deterministic models or by simulation. Our novel formulation lends itself to analytic treatment even in the stochastic case. We prove conditions for the stability of the price process itself, and also for the price to mean-revert to the fundamental value. Assuming stability, we derive analytic formulae on how the population ratios influence price dynamics and the profitability of the strategies. Our results suggest that whichever trader type is more present in the market will achieve higher returns.

**BIHARY, Zsolt**

Corvinus University of Budapest  
See pp. 54.

**VÍG, Attila A.**

Corvinus University of Budapest  
See pp. 28.

**DEARI, Fitim; BĂRBUȚĂ-MIȘU, Nicoleta;  
SHUGLIASHVILI, Teona**

***Capital structure and macroeconomic determinants:  
a panel data analysis for german SMEs***

Given the growing need for managing financial risks of Small and Medium-sized Enterprises (SMEs), understanding and predicting leverage of SMEs plays an increasing role. This paper analyses the determinants of capital structure and foremost leverage of German SMEs. The study enriches empirical work of German SME's capital structure in three ways. First, it considers not only company characteristics, but also industry effects and market condition as determinants of German SMEs leverage decisions. Second, the study captures that the mainly equity financed companies leverage decisions are well explained by company specific indicators, while no such evidence is found for mainly debt financed companies. Their leverage decisions are not responding to the market conditions either. Third, we analyse the dynamics of the overall leverage of SMEs and find that it is determined by the market conditions and overall company specific variables.

**BĂRBUȚĂ-MIȘU, Nicoleta**

holds a PhD in Finance (2009) from Bucharest Academy of Economic Studies, Romania. She has been working in the Business Administration Department at “Dunarea de Jos” University of Galati since 2003. She is currently Professor habilitated in Finance and Responsible of Research „Laboratory of bio-economics modelling”. She has a rich teaching and research experience created during the 15 years of activity and has participated in 21 research or educational projects. She is also co-author of 3 research studies, 2 specialized books and 5 books as single author (one published in Germany), covering aspects of the financial performance, corporate finance, financial analysis and modelling, financing, and financial management. She is the author of more than 55 articles published in national and international journals and conference proceedings and more than 100 professional articles in the field of funding and taxation for businesses in Romania. She is also reviewer for numerous ISI quoted journals.



## DOBRÁNSZKY-BARTUS, Katalin; KRENCHER, Jens Valdemar

### *Do pricing patterns on the Danish housing market change?*

In our analysis based on data from 2016, we found that housing markets are dependent on local factors so intensively that we cannot use a one-size-fits-all solution to describe, analyze, or for that matter regulate them. Using available data on the Danish housing market from 2017, we looked at again the sale process extended with supply and liquidity data. We focused on the behaviour of sellers and found that urbanites perceive the market differently than rural dwellers, and that this perception is reflected in their pricing mechanism as described by the so-called Perception Measure. We checked whether the relationship between the initial listing price and the actual sale price is still significant and if housing markets are dependent on local factors.

#### DOBRÁNSZKY-BARTUS, Katalin

Building on her two master degrees in Economics and in Law, she has more than 10 years of experience in the financial sector in Budapest and Brussels. Katalin worked both on the market side as an analyst, policy expert and advocacy strategist and on the regulatory side at the European Banking Authority in London. She is an expert in mortgage finance related regulation.



#### KRENCHER, Jens Valdemar

originally trained as a lawyer, as the latest experience he has 10 years of experience in the financial sector as executive Director, Head of the Brussels office of FinanceDenmark, and has been a non-tenured associate professor at the University of Copenhagen and the University of Southern Denmark. He published a number of books and articles, in particular on legal issues.





**DÖMÖTÖR, Barbara**

***Motives of foreign currency borrowings***

The foreign currency borrowings cause a significant systemic risk by making the local monetary policy ineffective, as many researches and the practice of several economies point it out. Besides the negative macroeconomical effects, it is worth to examine the relevance and consequences of foreign denominated debt on the micro level. We analyze the reasons of the spread of foreign currency loans in the central eastern countries in the early 2000s. The uncovered interest rate parity against the major currencies and the evolvment of the country risk premiums are tested. On the other hand, the behavioral motives are also highlighted, as herding or recency effects that impact both the demand and supply of FX-loans.

**DÖMÖTÖR, Barbara**

Corvinus University of Budapest

See pp. 25.

**EL KHALLOUFI, Hamza**

***Is monetary policy a source of systematic liquidity?  
Evidence from US stock market***

In this paper I examine the interplay between monetary policy, stock market liquidity and stock market liquidity risk in the US over the last six decades in three different exchanges. Using a vector autoregressive analyses over five liquidity measures, I found little evidence on the impact of monetary policy on stock market liquidity between 1962 and 2017; only market variables are significant determinants of liquidity. However, there is a strong evidence of this impact and a bidirectional Granger causality between them from 1985 and 2017. Moreover, I found that market liquidity and market liquidity risk impact significantly monetary policy uncertainty and little evidence on the opposite. It is an interesting result since policy uncertainty makes stocks more volatile and more correlated, especially when the economy is weak.

**EL KHALLOUFI, Hamza**

University of Paris 1 Sorbonne

See pp. 26.

## HORTAY, Olivér; ROZNER, Bence Péter

### *Optimal allocation of renewable energy subsidy licenses*

Since 2014, EU member states had to transform their renewable energy support system: according to the new guideline of the European Commission (EC, 2014/C200/01), subsidy rights should be auctioned so the state regulator can no longer directly influence the amount of support. In order to reach the renewable targets at the lowest cost, the member states should provide sufficient flexibility for investors and, in that respect, allocate an optimal amount of subsidy licenses. Flexibility reduces support costs but raise uncertainty and thus increases the role of the appropriate allocation strategy. We use Monte Carlo simulation to analyse state licensing strategies taking into account investors' real options behavior. The lessons learned from the research are that potentially significant cost savings can be achieved through a new allocation strategy perspective.

#### HORTAY, Olivér

is a Ph.D. student at the Department of Environmental Economics at Budapest University of Technology and Economics. In his research, he focuses on the financial implications of renewable energy subsidy systems. In recent years, he has carried out several modeling and policy consultancy work in the electricity market. He completed his Masters's Degree in Finance and Engineering Management at the Budapest University of Technology and Economics in 2017 and 2016.



#### ROZNER, Bence Péter

is a Ph.D. student at the Department of Probability Theory and Statistics at the Eötvös Loránd University. His main research topic is the modelling of large networks and stochastic processes especially in financial mathematics. He completed his Masters's Degree in Applied Mathematics at the Eötvös Loránd University.



**HUNG, Ngo Thai*****Does volatility transmission between stock market returns of Central and Eastern European countries vary from normal to turbulent periods? Evidence from EGARCH model***

This study investigates the transmission mechanism of price and volatility spillovers across the Budapest, Warsaw, Prague, Bucharest and Zagreb stock markets in the pre and post 2007 financial crisis period under framework of the multivariate EGARCH model. By using daily closing prices, the results highlight certain interesting key findings. We find evidence of price spillovers of the intraregional linkages among the stock price movements in the five countries. The results of our analysis show the existence of bidirectional volatility spillovers between stock markets of the Czech Republic and Croatia in the pre-crisis period, and between Hungary and Romania in the post-crisis period. Also, there are significant volatility spillovers from Croatia to Poland and from Poland to the Czech Republic during two periods. The volatility is found to respond asymmetrically to innovations in other markets. The findings also indicate that the stock markets are more substantially integrated into a crisis situation, as well as the persistence of volatility spillovers between the stock markets increases, and the financial stock markets become more integrated after crisis period. Finally, the integration of these markets has significant implications for policymakers and investors.

**HUNG, Ngo Thai**

is a PhD candidate in Finance at Corvinus University of Budapest. He did the Master's Degree in Applied Mathematics at Technology of University Ho Chi Minh City, Vietnam in 2008. He worked as a lecturer in Mathematics and Statistics at University of Finance and Marketing prior to starting the PhD studies. His research interests are primarily concentrated on the market integration, the non-linear dynamics of financial prices and risk management.



**HUSZÁR, Zsuzsa R.; SIMON, Zorka**

***The information content of securities lending along the sovereign risk spectrum***

We show that the fixed income segment of the global \$15-trillion securities lending market helps to reveal private information along the sovereign risk spectrum. Complementing the results of Huszar and Simon (2018) on Germany, we show the channels through which negative information is revealed in Italian Treasury lending transactions between 2005 and 2015. We find that lending market activity predicts negative economic outlook or credit rating downgrades, as well as large increases in the CDS spread during the Eurozone debt crisis. This suggests that the securities lending market leads the price discovery of Italian Treasuries, moreover, its information provisional role increases the systemic importance of this funding market.

**SIMON, Zorka**

is an Assistant Professor at the Research Center SAFE of Goethe University Frankfurt. She earned her PhD in Finance from Tilburg University, then held a position at the University of Mannheim. She is also a junior research fellow of Netspar. Her research areas include empirical asset pricing, sovereign debt pricing, as well as liquidity and credit risk. Her most recent research considers the effect of regulatory changes and monetary policy on long-maturity sovereign bonds and the interaction between market liquidity and repo and securities lending market utilization of sovereign bonds in the Eurozone. More information can be found on her personal website: [www.zorkasimon.com](http://www.zorkasimon.com)



**KHLIFA, Selma Haj*****Banking regulations and role of the state in economic growth***

This paper aims to discuss the economic impact of the Internal Rating Based (Basel III) reforms on financial economic growth. Signed in 2010 and gradually phased in from 2015, the Basel III agreements imposed particularly new solvency and liquidity ratios on banks. Under the Basel guidelines, the Basel II and Basel III Regulatory Framework requires regulators to validate that banks implement credit risk rating approaches that represent their internal risk profile. Following the financial crisis of 2007, is the internal ratings-based “IRB” approach the cure or is it the disease? However, the problem of access to financing called for the study of criteria that may influence the granting of bank loans, knowing that these businesses depend heavily on them. As part of the reform process, the implementation of internal rating approaches “IRB” under Basel III will result in a significant increase in banks’ capital requirements which will have an impact on the distribution of credit to non-financial institutions and on economic growth. Empirically, our contribution will cover the long-term implications of the guarantee schemes granted by the state to support the financial sector. It will particularly assess the changes in institutional behavior that lead to the rationalization of the financial sector under the Basel III guidelines.

**KHLIFA, Selma Haj**

holds a PhD in Management Science from the Business school – ISCAE Groupe - She is in charge of the SME / TPE Chair in Morocco. She is also certified Islamic Banker by CIBAFI. In 2017, Pr. Haj Khlifa received the honorific prize : Prize of the category best thesis "doctorate" of the 13th edition of the economist prize for research in economics and management - doctoral category in Morocco. Pr. Haj Khlifa is interested in analyzing the effectiveness of new prudential regulation of risk management on the performance and stability of African banks and their impact on economic growth. These recent publications include "Predicting the default risk in developing economies: Evidence from Morocco" in Journal of Business and Economics and participation in the International Academic Conference on Business and Economics held at Harvard University in Boston, USA, (July 2017).



**KRENCHER, Jens Valdemar; DOBRÁNSZKY-BARTUS, Katalin**

***Does a continuous loan-to-value requirement on cover pool undermine financial stability?***

In 2016, the European Commission proposed a set of rules with the aim of harmonising the European covered bond markets by outlining a principle based directive and proposing changes to the regulation regarding capital requirements (CRR). If covered bonds fulfil the criteria of Article 129 of the Capital Requirements Regulation, they are eligible for preferential treatment. One of the criteria is covering the loan-to-value requirement of the cover pool underlying the covered bonds. The proposal requires a continuous LTV compliance (on cover pool level) and recognises the so called relative coverage only. We would call this a static, non-risk based, requirement. Our hypothesis is, that this proposal may create procyclicality and undermines financial stability in a stressed scenario for specialized (non-deposit taking) mortgage banks. So far we have been unable to falsify the hypothesis.

**KRENCHER, Jens Valdemar**  
Corvinus University of Budapest  
See pp. 57.

**DOBRÁNSZKY-BARTUS, Katalin**  
Corvinus University of Budapest  
See pp. 57.

**MATSUK, Zoriana*****The legal regulation frameworks of the securities market activities: A review from Ukraine***

From the beginning of the securities market formation till nowadays one of the important problems of its development is the process of its regulation. In parallel with the development of global economy, the scientists studied both the theory of free market regulation and the theory of state intervention. The historical excursion testifies the presence of the continual discussions about the state's place and its role in the process of market economy regulation. Certainly, this concerns the securities market; the activities of its participants have to be state regulated. But in the way to the power decentralization and the integration of national financial system to the global financial sphere, the problems of the market self-regulation and the necessity of setting the frameworks of the state intervention become more relevant. The necessity of the state regulation is studied by different authors and different pieces of evidence of their influence on the development of securities market are found. There is no unique evidence as results of many studied factors. This Paper tried to contribute also in this line bringing evidence for the case of Ukrainian Securities Market. Author believes that this study can be viewed as a pioneering work in this case. Its evidence can be helpful for the next studies.

**MATSUK, Zoriana**

is a Post-doctoral Research Fellow at the Department of Finance, Kiev National Economic University after Vadym Hetman – Research University, Ukraine. Prior to this position she worked financial analytic at Asset Management Company. Zoriana was awarded a Ph.D. degree from KNEU in 2011. Her main research area is the architectonic of the infrastructure of the securities market.





## NÉMETH-DURKÓ, Emilia

### *Does financial development increase environmental quality?*

Economic development and the development of an effective economic policy can not be imagined without the integration of the financial, economic and energy sectors. The well-run and highly developed financial sector said to be making it possible to allocate the sufficient amount of financial resources for the the energy sector and also contributes to maintaining the balance between energy supply and consumption. The aim of my research is to reveal whether the financial development increase the energy consumption and indirectly how it affects the environment in Hungary. The results of multivariate econometric analysis indicate that financial development has a significantly contribution to enhance emission short and long run. The error correction mechanism confirms strong and medium faster speed of adjustment to equilibrium. Thus nearly the half of short run deviations converges back to the long term equilibrium point within one year. These findings will may be useful for decision-makers and energy planners where income change is taken into account in predicting energy production.

## NÉMETH-DURKÓ, Emilia

holds an assistant lecturer position of the Department of Finance at the Corvinus University of Budapest, where she teaches Corporate Finance and Business Valuation. She is now working on her PhD thesis about income inequality and changes in electricity consumption patterns. Her field of research is related to energy economics and environmental finance.



**ORMOS, Mihály; NAGY, László**

***A cluster-based analysis of financial markets***

This paper introduces a spectral clustering-based method to show that stock prices contain not only firm, but also network level information. We cluster different stock indices and reconstruct the equity index graph from historical daily closing prices. We show that tail events have a minor effect on the equity index structure. Moreover, covariances and Shannon entropy do not provide enough information about the network. However, a substantial part of the total variance can be explained by Gaussian clusters. Thus, mean-variance analysis with Gaussian clusters gives significant regression estimations. In addition, cluster-wise regressions also provide significant and stationer results, and, node level analysis reveals that cluster wise equity structures are different scale-free networks.

**ORMOS, Mihály**

Eötvös Loránd University

See pp. 39.

**NAGY, László**

Budapest University of Technology and Economics

See pp. 39.

## STEREŃCZAK, Szymon

### *Stock liquidity premium on the Warsaw Stock Exchange: New alternative tests*

In this paper I investigate whether on the Warsaw Stock Exchange the effect of stock liquidity on the stock returns is of the same direction and magnitude as on the US capital markets. US stock markets are considered the most liquid and most developed markets in the world and thus may serve as a benchmark. This question is interesting due to the uniqueness of Polish stock market, resulting mainly from its low level of development and different market organisation than on the US markets. Conducted analysis are also unique due to employment of novel framework, in particular by taking into account unexpected level of liquidity and amortising the liquidity costs. I run a series of panel regressions with different definitions of both explanatory and dependent variables to test the robustness of obtained results and I claim the existence of stock liquidity premium on the Warsaw Stock Exchange. Despite the relationship between stock liquidity and stock returns is of the expected direction and is statistically significant, its economical relevance is quite small.

## STEREŃCZAK, Szymon

is a PhD student at the Department of Corporate Finance at Poznań University of Economics and Business, Poland. His main research interests are in financial markets, stock liquidity, asset pricing and corporate finance. Recently he is working on research project focused on the relevance of stock liquidity for corporate financing.



**VARGA, György**

***International versus local credit ratings agencies:  
The case of Brazilian ABS***

This article describes and models the ratings announced by rating agencies to Brazilian ABS (FIDC) and address the important issue of agencies incentives to mismanage the rating they provide. We show that the debt provisions and the total assets of the FIDC are the main variables that explain the ratings issued by the agencies. On this basis we shows that overall, the ratings are inflated when it comes to large funds and that there is little difference between the explanatory variables of the rating used by national and international agencies.

**VARGA, György**

FCE Consultoria

See pp. 49.

## VÉRTESY, László

### *The free movement of capital - towards the Capital Markets Union - legal and regulative aspects*

Despite the fact, that the free movement of capital is a long-standing objective of the EU, after more than six decades, the European capital markets remained still fragmented and the economies remain heavily reliant on the banking sector. The paper summarizes the regulative development of the free movement of capital. The regulation has already launched at the beginning of the creation of the EEC. Then several legislations (regulations and directives) were adopted, and the capital liberalisation can be demonstrated through the case law of the Court of Justice, which controversial jurisdictions reveal the need for uniform regulation. In 2015 the Action Plan for Building a Capital Markets Union as adopted setting out a list of key measures till 2019. The choice of “Union” is a clear attempt to create parity of esteem with EMU and Banking Union. Common legislation and harmonisation are needed regarding securitisation, integrated covered bond market, STS labelling, retail investments, savings, prospectus, crowdfunding practices, corporate law and taxation. With a uniform regulation for the covered bond market (€2.1 trillion) the EU borrowers would save an estimated €1.5 to 1.9 billion annually. The catching up is important for the non-euro zone states since they could have experienced the disadvantages of the backlog. Whoever stays out, misses out.

## VÉRTESY, László

is an associate professor at the Budapest University of Technology and Economics, Faculty of Economic and Social Sciences (BME-GTK) Since 2005 he has been constantly teaching in the higher education, presenting lectures, participating in conferences in Hungary and in other countries (Italy, France, Belgium, Portugal, China, Kenya, Slovakia, Czech Republic, Serbia, Romania etc.) too. Besides this, he provides research and consultancy in the business sector and for numerous scientific institutions. His work encompasses a number of fields: in jurisprudence: administrative law (state and municipal administration, administrative procedure, efficiency and management, public tasks, good governance, e-administration), financial law, banking and commercial law; and in economics: macroeconomics, public finances, financial sector, furthermore law and economics. Nearly eighty publications of his have appeared in these topics.



## PRACTICAL INFORMATION

### Conference Venue

Corvinus University of Budapest, Main Building  
Registration, Plenary Sessions: Lecture room III (ground floor)  
Parallel Sessions: Lecture room III (ground floor), room 2001 (second floor, counting the ground floor as zero), Faculty Club (basement)  
8 Fővám tér  
Budapest  
1093  
Hungary

### Venue of Gala Dinner (by invitation or by registration)

Hungarian Academy of Sciences  
9 Széchenyi István tér  
Budapest  
1051  
Hungary

### Time Zone

Central European Time (CET) is used in Hungary, Budapest is 1 hour ahead of Greenwich Mean Time (GMT).

### Currency and Credit Cards

Hungarian Forint (HUF or Ft) is the currency of Hungary; the exchange rates are approximately EUR 1 = HUF 320 and USD 1 = HUF 280. Credit cards (Visa, Mastercard) are widely accepted (in all taxis and hotels, most shops) and there are ATMs on the campus and in the neighbourhood.

### Transportation

Budapest has a dense network of metros, trams and buses. Tickets should be purchased from a vending machine before boarding. Travelcards for 24 or 72 hours or 7 days are also available. <http://www.bkk.hu/en/tickets-and-passes/prices/>. Taxis are regulated, prices are fixed. Reliable Taxi companies include Főtaxi: +36 1 2222222, City: +36 1 2111111, Taxi2000: +36 1 2000000, Tele5: +36 1 5555555, 6x6: +36 1 6666666.

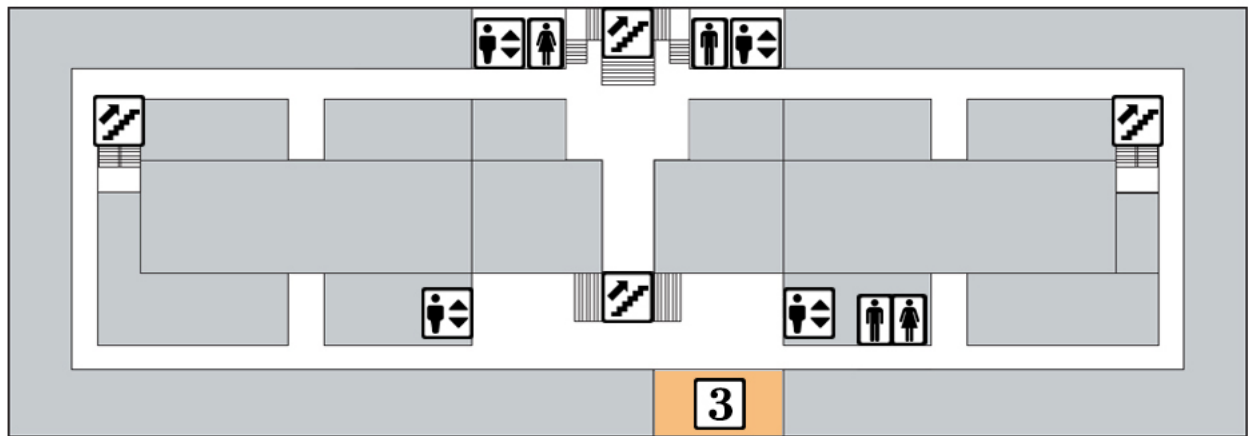
### Electricity

European type (Schuko) 2 pin sockets with 230V 50Hz are used.

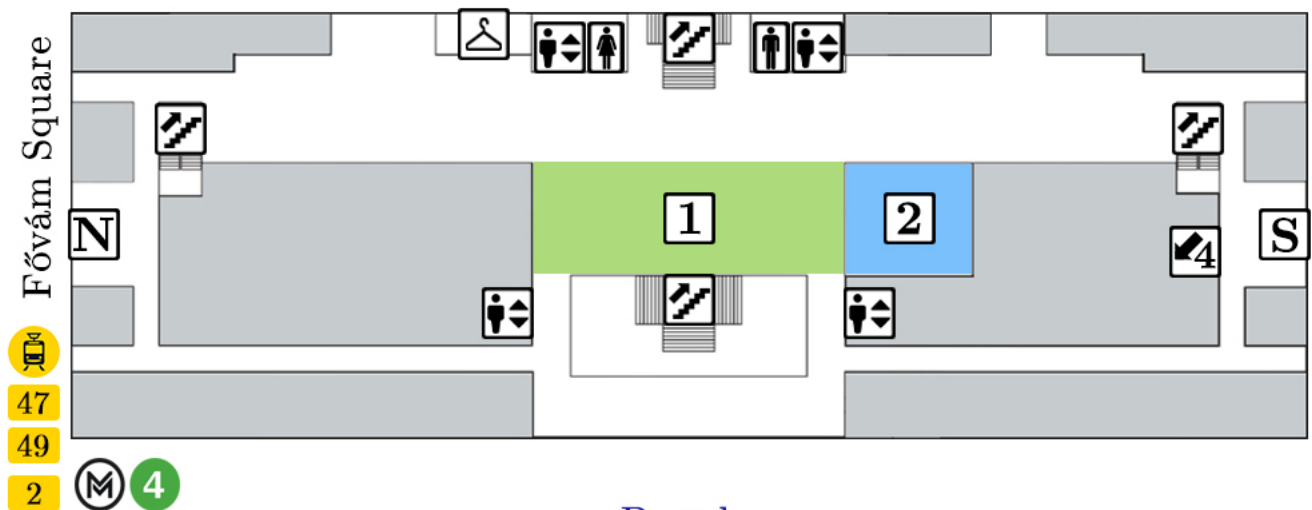
### Emergency number: 112

# AFML2018 Conference Map

## Second floor



## Ground floor



Danube

## Symbols

<b>1</b>	Main hall		Cloakroom
<b>2</b>	Lecture room III		Lift
<b>3</b>	Room 2001		Stairway
	Stairway to the Faculty club		Female/male bathroom
<b>N</b>	Northern entrance		
<b>S</b>	Southern entrance		

## Main public transport at Fővám Square



## Organizers

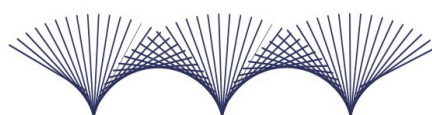


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Game Theory Research Group  
Centre for Economic and Regional Studies  
Hungarian Academy of Sciences

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Financial Analysts Societies



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in Banking



CFA Society Hungary



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Faculty of Economic and Social Sciences  
Budapest University of Technology and Economics

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WILL BE HELD 14-15 NOVEMBER, 2019 IN BUDAPEST